

MINISTRY OF PUBLIC HEALTH, EGYPT

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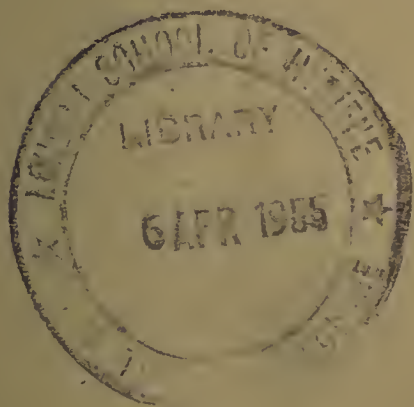
# ANNUAL REPORT

ON THE WORK OF THE

## Ministry of Public Health

for the Year 1949

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**Government Press, Cairo.**

GOVERNMENT PUBLICATIONS are on Sale at the "Sale Room"  
Ministry of Finance and Economy. Correspondence relating  
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# MINISTRY OF PUBLIC HEALTH

## ANNUAL REPORT FOR THE YEAR 1949

### Part I—PUBLIC HEALTH

#### Chapter I—VITAL STATISTICS

##### A.—*Population* :

The estimated population of Egypt in mid year 1949 was 19,948,600 as compared with 19,554,800 in mid 1948. Table No. 1 shows the age and sex distribution of the estimated population of Egypt in mid-year 1949 and proportion per thousand in all ages.

##### B.—*Births* :

The total number of births for all Egypt during 1949 was 836,516 *i.e.* a birth rate of 41.9 per thousand of the total estimated population as against 42.5 in 1948. The highest birth-rate was 63.5 recorded in Ismailia. The lowest was 28.7 recorded in Qena province. During the previous ten years (1940–1949) the birth rate ranged between 38.2 in 1942 and 43.9 in 1945 with a mean rate of 41.6 (table No. 7). From table No. 4 it will be noticed that the highest monthly birth-rate in 1949 was in December (*i.e.* 46.2 per thousand), and the lowest was during the month of May (*i.e.* 38.3). It will be seen from the same table that there were more male than female births in 1949, the ratio being 91.34 females per 100 males.

##### C.—*Deaths* :

A total of 410,524 deaths were recorded during 1949 in all Egypt, or a rate of 20.6 per thousand of the population as against 20.3 in 1948. The highest death-rate was 28.3 in Menoufia province while the lowest was 11.8 recorded in Qena province. Tables Nos. 6 and 7 show the deaths and death-rates for governorates and provinces in 1940–1949. It will be seen from table No. 4 that the death rate in 1949 was highest during the second and third quarters of the year, reaching its maximum in June, whilst the lowest rate was during the last quarter of the year reaching its minimum in November.

##### D.—*Age and Sex Distribution of Deaths* :

Table No. 9 gives the number and rate of deaths by sex in the different age periods in 1949. It can be seen from this table that more than half the number of deaths, 57.3 per cent, occurred in the first age group (*i.e.* 0–4). There were more male than female deaths, the ratio being 88.23 females per 100 males. The preponderance of male mortality was common in all age groups except in those above 85 years of age.

##### E.—*Infantile mortality* :

The total number of infantile deaths in all Egypt in 1949 was 112,641 or 135 per thousand live births as against 139 in 1948. In localities having health offices, 64,914 infantile deaths were recorded or 174.7 per thousand live births (table No. 10) as against 175.1 in 1948.

Table No. 11 shows that diarrhoea and enteritis continued to be the main causes of infantile deaths, congenital debility and bronchitis came next in importance.

Table No. 11 gives the infantile deaths at different age periods in all localities having health offices. A study of this table shows that most of the deaths occurred in the first month of life,



Table No. 8 shows that the highest infantile mortality rate in 1949 was in the governorates, being 179, while the lowest was in Upper Egypt provinces, being 117. In Lower Egypt provinces the rate was 127.

F.—*Still-births* (Table 12) :

The still birth-rate for all Egypt in 1949 was 7 per thousand births. This rate was 17 in the Governorates, 4.3 in Lower Egypt provinces and 4.1 in Upper Egypt provinces. In 1948 these rates were 6.9 for all Egypt, 16.4 for the Governorates, 4.6 for Lower Egypt provinces and 6.9 for Upper Egypt provinces.

The higher death rates in governorates may be due to : (1) more accurate registration of deaths ; (2) the prevalence of venereal diseases, especially syphilis, in the governorates which consist of ports and large towns.

TABLE NO. 1.—ESTIMATED POPULATION OF EGYPT BY AGE AND SEX 1949

	Males	Females	TOTAL	Rate per thousand of Population
0- 4 ... ..	1,345,800	1,372,800	<b>2,718,600</b>	136.3
5- 9 ... ..	1,271,400	1,252,900	<b>2,524,300</b>	126.5
10-14 ... ..	1,201,500	1,126,600	<b>2,328,100</b>	116.7
15-19 ... ..	1,034,900	964,900	<b>1,999,800</b>	100.2
20-24 ... ..	712,800	742,600	1,455,400	73.0
25-29 ... ..	721,200	827,300	<b>1,548,500</b>	77.6
30-34 ... ..	652,200	725,200	<b>1,339,700</b>	69.0
35-39 ... ..	693,400	887,500	<b>1,380,900</b>	69.2
40-44 ... ..	598,500	595,600	<b>1,194,100</b>	59.9
45-49 ... ..	450,700	436,700	<b>887,400</b>	44.5
50-54 ... ..	443,000	471,700	<b>917,700</b>	45.9
55-59 ... ..	180,000	182,000	<b>362,000</b>	18.1
60-64 ... ..	265,100	314,300	<b>579,200</b>	29.0
65-69 ... ..	88,100	86,400	<b>174,500</b>	8.8
70-74 ... ..	113,400	143,800	<b>257,200</b>	12.9
75-79 ... ..	24,700	25,300	<b>50,000</b>	2.5
80-84 ... ..	36,600	55,400	<b>92,000</b>	4.6
85 and over ... ..	18,200	24,700	<b>5,400</b>	2.2
Not stated ... ..	26,400	35,000	<b>61,400</b>	3.1
<b>TOTAL ... ..</b>	<b>9,877,900</b>	<b>10,070,700</b>	<b>19,948,600</b>	

TABLE NO. 2.—BIRTHS, DEATHS AND RATES PER 1,000 POPULATION  
AND INFANTILE MORTALITY RATES

Years							Live Births	Deaths	Natural Increase	Birth-Rate Per 1,000 Pop.	Death-Rate Per 1,000 Pop.	Infantile Mortality Rate Per 1,000 Live Births
1938	...	...	...	...	...	...	704,376	429,248	275,128	43·4	26·4	163
1939	...	...	...	...	...	...	696,746	429,033	267,713	42·2	26·0	161
1940	...	...	...	...	...	...	697,700	444,448	253,252	41·6	26·5	162
1941	...	...	...	...	...	...	695,016	440,981	254,035	40·8	25·9	150
1942	...	...	...	...	...	...	658,324	494,358	163,966	38·2	28·7	168
1943	...	...	...	...	...	...	689,771	492,644	197,127	39·6	28·3	160
1944	...	...	...	...	...	...	722,166	472,234	249,932	41·0	26·8	152
1945	...	...	...	...	...	...	787,502	512,003	275,499	43·9	28·6	153
1946	...	...	...	...	...	...	774,152	469,382	304,770	42·6	25·8	141
1947	...	...	...	...	...	...	834,557	408,577	425,980	43·5	21·3	127
1948	...	...	...	...	...	...	832,728	397,976	434,752	42·5	20·3	139
1949	...	...	...	...	...	...	836,516	410,524	425,992	41·9	20·6	135

**TABLE No. 3.— QUARTERLY DISTRIBUTION OF DEATHS BY SEX AND DEATH RATES 1940-1949**

Years	Quarter Ended				Quarter Ended			
	March	June	September	December	March	June	September	December
	Male Deaths				Female Deaths			
<b>1940</b> ... ..	51,095	57,263	64,498	57,148	43,357	57,799	56,326	46,962
<b>1941</b> ... ..	48,979	63,062	68,650	58,503	40,231	59,768	59,361	47,427
<b>1942</b> ... ..	57,024	78,544	70,071	62,740	47,208	68,590	51,874	50,307
<b>1943</b> ... ..	58,690	69,137	71,461	70,096	47,015	58,712	61,239	56,294
<b>1944</b> ... ..	61,059	69,029	70,457	57,025	48,733	59,308	60,175	46,448
<b>1945</b> ... ..	55,687	69,307	85,914	66,032	44,935	60,612	75,509	54,007
<b>1946</b> ... ..	71,014	72,047	64,521	53,089	51,415	61,661	55,845	44,790
<b>1947</b> ... ..	43,030	49,577	60,302	67,938	35,468	42,657	52,105	57,500
<b>1948</b> ... ..	42,411	52,638	66,696	50,473	36,494	47,616	60,151	41,497
<b>1949</b> ... ..	48,324	62,098	63,321	44,358	41,159	56,776	56,896	37,592
	Total of Deaths				Annual Death rate per 1,000 Persons Living			
<b>1940</b> ... ..	94,452	125,062	120,824	104,110	22·6		28·6	24·6
<b>1941</b> ... ..	89,210	117,830	128,011	105,930	21·1	27·8	29·8	24·7
<b>1942</b> ... ..	104,232	147,134	129,945	113,047	24·5	34·3	29·9	26 0
<b>1943</b> ... ..	105,705	127,849	132,700	126,390	24·6	29·4	30·2	28·8
<b>1944</b> ... ..	109,793	128,337	130,632	103,473	25·0	29·2	29·4	23·3
<b>1945</b> ... ..	100,622	129,919	161,423	120,039	22·8	29·1	35·7	26·6
<b>1946</b> ... ..	117,429	133,708	120,366	97,879	26·3	31·3	26·3	21·4
<b>1947</b> ... ..	78,498	92,234	112,407	125,438	16·6	19·3	23·3	26·0
<b>1948</b> ... ..	78,905	100,254	126,847	91,970	16·2	20·6	25·6	18·6
<b>1949</b> ... ..	89,483	118,874	120,217	81,950	18·2	23·9	23·9	16·3



TABLE NO. 4.—MONTHLY DISTRIBUTION OF BIRTHS AND DEATHS BY SEX AND RATES  
PER 1,000 OF POPULATION 1949.

Months	Births			Birth Rate Per 1000 Pop.
	Males	Females	TOTAL	
January ... ..	40,521	35,530	<b>76,051</b>	44·9
February ... ..	35,784	32,573	<b>68,357</b>	44·7
March ... ..	36,659	33,824	<b>70,483</b>	41·7
April ... ..	34,778	31,917	<b>66,695</b>	40·7
May ... ..	34,111	30,762	<b>64,873</b>	38·3
June ... ..	33,025	29,943	<b>62,968</b>	38·4
July ... ..	36,734	33,019	<b>69,753</b>	41·2
August ... ..	37,808	34,575	<b>72,383</b>	42·8
September ... ..	34,405	31,047	<b>65,452</b>	39·9
October ... ..	36,095	33,636	<b>69,731</b>	41·2
November ... ..	37,017	34,534	<b>71,551</b>	43·6
December ... ..	40,244	37,975	<b>78,219</b>	46·2
TOTAL ... ..	<b>437,181</b>	<b>399,335</b>	<b>836,516</b>	<b>41·9</b>

Months	Deaths			Death Rate Per 1000 Pop.
	Males	Females	TOTAL	
January ... ..	17,238	14,660	<b>31,898</b>	18·9
February ... ..	15,294	12,971	<b>28,265</b>	18·5
March ... ..	15,792	13,528	<b>29,320</b>	17·3
April ... ..	16,217	14,017	<b>30,234</b>	18·4
May ... ..	21,436	19,783	<b>41,219</b>	24·4
June ... ..	24,445	22,976	<b>47,421</b>	28·9
July ... ..	24,207	21,854	<b>46,061</b>	27·2
August ... ..	22,015	19,846	<b>41,861</b>	24·7
September ... ..	17,099	15,196	<b>32,295</b>	19·7
October ... ..	15,292	12,966	<b>28,258</b>	16·7
November ... ..	13,951	11,836	<b>25,787</b>	15·7
December ... ..	15,115	12,790	<b>27,905</b>	16·5
TOTAL ... ..	<b>218,101</b>	<b>192,423</b>	<b>410,524</b>	<b>20·6</b>

TABLE No. 5.—MONTHLY DEATH RATE PER 1,000 OF POPULATION 1940—1949

Months	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
January ... ..	25·8	23·3	24·6	26·0	23·0	23·6	25·8	19·0	15·9	18·9
February ... ..	19·9	19·1	24·1	21·7	23·2	20·9	24·5	15·9	16·4	18·5
March ... ..	21·8	20·6	23·8	25·1	24·3	22·8	27·3	14·8	16·2	17·3
April ... ..	25·5	22·6	27·8	26·0	25·3	21·9	27·1	16·3	15·4	18·4
May ... ..	31·8	29·4	34·2	30·3	29·2	29·1	30·3	18·8	20·0	24·4
June ... ..	32·1	31·1	39·5	31·8	32·8	36·1	30·9	22·9	26·2	28·9
July ... ..	32·7	32·3	33·9	33·8	33·7	39·1	29·0	25·5	27·4	27·2
August ... ..	29·0	31·8	28·1	31·3	29·9	37·3	26·5	23·3	27·0	24·7
September ... ..	24·7	26·1	24·8	26·3	25·2	31·5	24·1	21·0	22·7	19·7
October ... ..	24·0	24·7	25·1	29·5	24·3	27·7	22·6	38·2	19·2	16·7
November ... ..	24·2	24·5	25·4	27·5	23·3	25·0	20·1	22·9	18·2	15·7
December ... ..	26·3	25·4	25·6	30·0	22·8	27·7	22·0	16·7	18·6	16·5
TOTAL ... ..	26·5	25·9	28·7	28·3	26·8	28·6	25·8	21·3	20·3	20·6

Total Egypt.

TABLE No. 6.—BIRTHS, DEATHS AND INFANT MORTALITY BY GOVERNORATES AND PROVINCES 1940-1949

Localities	1940			1941			1942			1943			1944		
	B.	D.	In. M.	B.	D.	In. M.	B.	D.	In. M.	B.	D.	In. M.	B.	D.	In. M.
Cairo ...	59,427	36,859	11,685	62,774	40,165	12,441	65,231	52,081	16,159	76,148	54,065	18,023	85,788	53,583	18,420
Alexandria	27,293	16,321	5,930	20,414	16,972	3,945	25,205	18,475	5,149	32,986	24,313	8,259	39,846	22,487	8,661
Ismailia	2,909	1,464	502	2,303	2,208	443	2,412	2,086	473	3,605	2,411	678	4,250	2,632	780
Port Said	5,090	2,389	663	4,243	2,905	739	5,173	3,561	952	6,207	3,393	1,132	7,852	4,075	1,456
Damietta	1,942	951	287	2,057	1,018	286	1,853	1,291	322	1,833	977	276	2,365	971	348
Suez ...	3,046	1,578	588	2,585	2,258	615	3,544	2,982	895	4,756	4,118	1,251	5,112	4,439	1,447
Frontiers	4,460	2,491	605	3,890	3,746	825	3,823	2,757	631	4,232	2,783	738	5,283	2,796	716
Behera...	41,084	26,352	5,191	42,770	28,744	5,206	40,592	28,479	4,898	41,465	26,182	4,507	44,383	26,396	4,728
Dakahlia	59,350	39,385	9,684	60,776	40,318	9,527	54,709	45,622	9,357	55,825	41,245	8,242	60,961	35,227	8,644
Gharbia	89,384	59,254	13,457	92,553	56,442	11,761	83,155	63,456	12,139	85,688	60,778	11,703	91,008	54,444	11,753
Menoufia	52,616	38,975	9,747	54,362	35,898	8,442	48,233	40,580	9,389	50,660	37,976	8,375	49,801	38,515	8,513
Kaliubia	27,964	20,523	5,091	28,911	19,681	4,634	27,391	21,929	4,902	29,800	19,589	4,813	29,331	19,785	4,759
Sharkia	48,523	29,565	6,507	48,703	31,501	6,603	48,171	32,808	6,536	49,840	31,498	6,288	50,957	32,430	5,641
Aswan	10,897	7,752	1,572	11,167	7,731	1,482	9,915	10,963	1,558	6,456	14,943	1,386	5,696	9,243	769
Assiut	54,731	34,380	8,994	52,986	33,410	8,186	49,279	36,790	8,164	47,866	33,789	7,098	48,917	32,957	6,814
Beni-Suef	22,859	12,788	3,148	22,292	11,862	2,657	21,282	14,144	3,070	22,175	14,000	3,070	22,402	13,112	2,807
Fayoum	26,661	18,743	5,700	26,451	17,818	5,353	25,955	18,405	5,097	26,041	18,132	4,926	26,227	19,787	5,021
Gerga ...	49,927	28,128	6,584	47,968	25,480	5,611	42,963	28,445	5,255	41,319	27,901	4,690	42,667	23,566	3,981
Giza ...	34,133	21,275	6,067	33,981	20,796	5,363	32,277	25,353	6,327	34,145	24,230	5,882	35,793	22,766	6,012
Minia ...	39,676	26,113	7,315	39,503	23,316	6,312	36,697	25,484	6,207	38,104	25,944	6,269	39,394	26,636	6,199
Qena ...	35,728	19,162	4,393	34,013	18,717	3,969	30,459	18,668	3,357	30,630	24,377	2,914	24,399	26,395	2,551
TOTAL ...	697,700	444,448	112,910	695,016	440,981	104,402	658,324	494,358	110,847	689,771	492,644	110,520	722,166	472,234	110,020



TABLE No. 6.—BIRTHS, DEATHS AND INFANT MORTALITY BY GOVERNORATES AND PROVINCES (contd.)

Localities	1945			1946			1947			1948			1949		
	B.	D.	In. M.	B.	D.	In. M.	B.	D.	In. M.	B.	D.	In. M.	B.	D.	In. M.
Cairo ...	90,467	50,559	18,749	94,831	52,511	19,006	99,866	44,196	17,213	100,005	52,672	19,940	104,047	50,338	19,099
Alexandria ...	42,816	26,764	10,355	44,860	20,540	8,391	46,231	22,380	8,860	48,374	20,436	8,472	49,187	22,849	9,061
Ismailia ...	4,562	2,314	766	4,579	2,255	745	5,119	2,597	771	5,701	2,584	914	7,285	3,068	1,083
Port Said ...	7,723	3,972	1,445	7,608	3,388	1,217	8,594	3,165	110	8,070	3,513	1,116	8,952	3,416	1,195
Damietta ...	2,610	1,270	481	2,580	1,001	353	2,798	1,103	367	2,803	991	305	2,714	1,057	373
Suez ...	5,635	3,612	1,372	5,546	3,255	1,166	5,757	2,624	1,023	6,183	3,054	1,156	6,493	3,139	1,155
Frontiers ...	5,990	2,757	779	6,411	3,075	995	7,177	2,675	855	6,800	2,733	927	7,496	2,730	915
Behera... ..	50,709	28,836	5,300	49,091	25,743	4,753	49,796	25,861	5,516	50,776	21,285	4,955	50,146	21,931	4,937
Dakahlia ...	65,092	43,323	10,333	63,688	37,106	8,625	67,008	38,385	8,258	69,363	31,981	9,421	68,767	33,666	9,023
Gharbia ...	96,485	65,376	13,254	98,428	56,573	11,797	102,185	57,732	11,070	107,125	46,709	13,116	108,265	48,951	12,286
Menoufia ...	52,051	39,751	8,512	50,115	38,966	7,885	55,843	32,727	7,926	56,025	31,605	9,216	54,988	34,444	9,021
Kaliubia ...	32,324	21,193	5,023	31,974	20,980	4,690	34,093	17,475	4,526	34,919	19,467	5,808	33,796	18,239	5,112
Sharkia ...	53,844	35,354	6,715	53,377	32,647	6,406	52,557	32,073	6,070	56,424	28,320	7,016	55,417	28,251	6,657
Aswan ...	12,461	6,054	1,272	10,635	5,225	1,173	11,343	5,188	1,255	10,734	5,012	1,246	15,913	5,074	1,243
Assiut ...	53,322	41,841	7,455	52,048	35,562	6,753	55,386	25,426	6,557	53,562	26,343	6,098	52,981	28,193	6,461
Beni Suef ...	22,069	17,436	3,128	24,071	13,698	2,586	26,010	11,465	2,607	24,780	11,329	2,746	24,218	12,311	3,015
Fayoum ...	27,582	19,465	5,156	25,930	18,926	4,326	31,665	14,975	4,388	27,994	16,425	4,255	28,914	17,003	4,635
Gerga ...	44,217	24,560	3,946	41,809	25,952	3,900	46,602	16,975	3,397	43,335	18,008	3,439	40,716	19,336	3,127
Giza ...	38,838	24,827	6,312	36,274	27,016	6,368	43,682	19,799	5,943	41,165	21,180	6,465	38,888	21,256	5,763
Minia ...	42,202	36,006	7,193	36,519	26,938	4,847	47,085	18,921	5,332	44,530	20,897	5,696	44,284	21,748	5,769
Qena ...	36,501	16,647	2,819	33,778	18,025	3,041	35,760	12,830	2,782	34,060	13,432	3,115	33,049	13,525	2,710
TOTAL ...	787,502	512,003	120,366	774,152	469,382	169,023	834,557	408,577	105,821	832,728	397,976	115,422	836,516	410,524	112,641



TABLE No. 7.—BIRTH-RATES, DEATH-RATES AND INFANTILE

Localities	1940			1941			1942			1943			1944		
	Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.
Cairo ... ..	43·3	26·8	197	45·0	28·8	198	46·3	36·9	247	53·1	37·7	237	58·9	36·8	215
Alexandria ...	37·7	22·3	188	28·0	23·3	193	34·4	25·2	204	44·4	32·7	250	52·7	29·7	217
Ismailia ...	53·2	26·9	186	68·6	42·9	235	44·7	38·5	214	61·4	41·1	188	70·9	43·9	184
Port-Said ...	38·7	18·1	131	31·5	21·6	169	38·3	26·5	183	44·9	24·6	182	53·8	28·9	192
Damiatta ...	45·1	22·2	148	46·5	23·0	139	41·1	28·8	174	40·1	21·4	151	50·8	20·9	147
Suez ... ..	57·7	30·5	204	47·3	44·0	254	66·1	58·1	288	84·9	73·5	263	90·6	78·7	243
Frontier Dist.	38·1	31·3	136	35·6	37·6	176	32·2	23·3	165	35·3	23·2	174	43·2	22·8	135
Behera... ..	36·9	23·6	126	37·9	25·5	122	30·7	25·0	121	35·9	22·7	109	37·9	22·5	107
Dakahlia ...	46·0	30·5	163	46·4	30·8	157	41·3	34·5	171	41·8	31·9	148	45·0	26·0	142
Gharbia ...	43·9	28·6	151	43·9	36·3	127	39·1	32·9	146	39·7	28·2	137	41·6	24·9	129
Menoufia ...	43·6	32·3	185	44·4	29·3	155	38·9	29·7	195	40·6	30·4	165	39·6	30·6	171
Kaliubia ...	43·7	32·1	182	44·5	30·3	160	41·8	33·5	119	44·8	29·5	162	43·6	29·4	162
Sharkia ...	41·6	35·3	134	41·1	26·6	136	40·1	27·3	136	40·9	25·8	126	41·2	26·2	111
Aswan ... ..	54·5	24·6	144	35·1	24·3	133	30·8	34·1	157	20·3	47·1	215	18·6	30·1	143
Assiut ... ..	43·1	27·0	164	41·0	25·9	154	37·7	28·1	166	36·2	25·6	148	36·6	24·7	139
Beni Suef ...	38·7	21·6	138	37·1	19·7	119	34·9	23·2	144	35·9	22·7	138	35·8	20·9	125
Fayoum ... ..	42·7	30·0	214	41·8	28·1	202	40·5	28·7	196	40·1	27·9	189	40·0	30·1	191
Gerga ... ..	41·8	23·5	132	39·4	21·9	117	34·8	23·0	122	33·1	22·3	114	33·7	18·6	93
Giza ... ..	46·4	28·9	178	45·4	27·8	158	42·6	33·5	196	44·5	31·6	172	46·1	29·2	168
Minia ... ..	40·8	26·8	184	40·0	23·6	160	36·6	25·4	169	37·5	25·6	165	38·3	25·9	157
Qena ... ..	33·3	17·9	123	31·2	17·2	117	27·6	16·9	110	27·5	21·9	95	22·0	23·8	102
<b>TOTAL ...</b>	<b>41·6</b>	<b>26·5</b>	<b>162</b>	<b>40·8</b>	<b>25·9</b>	<b>150</b>	<b>38·2</b>	<b>28·7</b>	<b>168</b>	<b>39·6</b>	<b>28·3</b>	<b>160</b>	<b>41·0</b>	<b>26·8</b>	<b>152</b>



MORTALITY RATES BY GOVERNORATES AND PROVINCES 1940—1949.

1945			1946			1947			1948			1949		
Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.	Birth	Death	Inf. Mort.
60·5	33·8	207	61·9	34·3	200	47·5	21·0	172	46·8	24·7	199	47·8	23·1	184
55·5	34·7	242	66·6	25·9	187	49·8	24·1	192	50·7	21·4	175	50·2	23·3	184
73·7	37·9	168	71·2	35·0	162	74·9	38·0	151	50·9	23·1	160	63·5	26·7	149
53·4	27·5	187	51·1	22·7	159	48·1	17·7	129	43·1	19·1	138	47·4	18·1	133
54·3	26·4	184	52·1	20·2	136	52·1	20·5	131	50·3	17·8	109	47·3	18·4	137
97·3	63·4	244	92·4	54·2	210	53·1	24·2	178	55·1	27·2	187	56·4	27·3	178
48·0	22·1	130	50·0	23·9	155	42·8	15·9	119	39·3	15·8	136	42·3	15·4	122
42·6	24·2	105	40·6	21·3	97	40·0	20·8	111	39·7	16·6	98	38·3	16·8	98
47·1	31·4	159	45·5	26·5	135	47·3	27·1	123	47·7	22·0	136	46·2	22·6	131
43·4	29·4	137	43·7	25·1	119	43·7	24·7	108	44·6	19·5	122	44·1	19·9	113
40·9	31·2	164	39·2	30·5	175	47·7	28·0	142	46·7	26·4	164	45·1	28·3	164
47·2	30·4	100	46·1	30·3	146	49·6	25·4	133	48·9	27·3	166	46·5	25·1	151
42·8	28·1	125	42·0	25·7	120	38·7	23·6	115	41·9	21·0	124	40·4	20·6	120
40·0	19·5	102	33·7	16·5	110	39·6	18·1	111	36·1	16·9	116	52·1	16·6	78
39·4	30·9	140	38·3	26·2	129	40·1	18·4	118	38·0	18·7	113	37·0	19·7	122
34·8	27·5	142	37·7	41·4	107	42·4	18·6	100	39·4	18·0	111	37·7	19·2	124
41·5	29·3	187	38·8	28·3	166	47·1	22·2	139	40·6	23·8	152	41·3	24·3	160
34·3	19·1	89	32·1	19·9	93	36·1	13·1	73	32·7	13·6	79	30·2	14·4	77
48·9	31·3	163	45·2	33·7	175	53·1	24·1	136	46·8	24·1	157	43·4	23·7	148
40·6	34·6	170	35·2	25·9	132	44·3	17·8	113	41·4	19·4	128	40·3	19·8	130
32·5	14·8	77	29·7	15·8	90	32·5	11·5	78	30·1	11·9	91	28·7	11·8	82
43·9	28·6	153	42·6	25·8	141	43·5	21·3	127	42·5	20·3	139	41·9	20·6	135

TABLE No. 8.—BIRTHS, DEATHS, INFANT MORTALITY AND RATES  
BY GOVERNORATES AND PROVINCES 1949.

Localities	Births	Birth Rate Per 1000 Pop.	Deaths	Death Rate Per 1000 Pop.	Infantile Mortality	Inf. Mortali- ty Rate per 1000 Births
Cairo ... ..	104,047	47·8	50,338	23·1	19,099	184
Alexandria ... ..	49,187	50·2	22,849	23·3	9,061	184
Ismailia ... ..	7,285	63·5	3,068	26·7	1,083	149
Port Said ... ..	8,952	47·4	3,416	18·1	1,195	133
Damietta ... ..	2,714	47·3	1,057	18·4	373	137
Suez ... ..	6,493	56·3	3,139	27·3	1,155	178
GOVERNORATES : TOTAL ... ..	178,678	49·2	83,867	23·1	31,966	179
Frontier Districts ... ..	7,496	42·3	2,730	15·4	915	122
Behera ... ..	50,146	38·3	21,931	16·8	4,937	98
Dakahlia ... ..	68,767	46·2	33,666	22·8	9,024	131
Gharbia ... ..	108,265	44·1	48,951	19·9	12,286	113
Menoufia ... ..	54,988	45·1	34,444	28·3	9,021	164
Kaliubia ... ..	33,796	46·5	18,239	25·1	5,112	151
Sharkia ... ..	55,417	40·4	28,250	20·6	6,657	120
LOWER EGYPT : TOTAL ... ..	371,379	43·3	185,481	21·6	47,037	127
Aswan ... ..	15,913	52·1	5,074	16·6	1,243	78
Assiut ... ..	52,981	37·0	28,193	19·7	6,461	122
Beni Suef ... ..	24,218	37·7	12,311	19·2	3,015	124
Fayoum ... ..	28,914	41·3	17,003	24·3	4,635	160
Gerga ... ..	40,716	30·2	19,336	14·4	3,127	77
Giza ... ..	38,888	43·4	21,256	23·7	5,763	148
Minia ... ..	44,284	40·3	21,748	19·8	5,769	130
Qena ... ..	33,049	28·7	13,525	11·8	2,710	82
UPPER EGYPT : TOTAL ... ..	278,963	36·9	138,446	18·3	32,723	117
GRAND TOTAL ... ..	836,516	41·9	410,524	20·6	112,641	135

TABLE No. 9.—AGE AND SEX DISTRIBUTION OF DEATHS AND RATES  
PER 1000 POPULATION 1949.

Age Groups	Deaths						Males prop Per cent	Female prop Per cent	Prop. Per cent
	Males	Rate	Females	rate	TOTAL	Rate			
0-4 Years ... ..	121,983	90·6	113,079	89·8	235,062	86·5	55·9	58·8	57·3
5-9 „ ... ..	5,534	4·4	4,522	3·6	10,056	4·0	2·5	2·4	2·4
10-14 „ ... ..	4,028	3·4	2,700	2·4	6,728	2·9	1·8	1·4	1·6
15-19 „ ... ..	3,578	3·5	2,328	2·4	5,906	2·9	1·6	1·3	1·4
20-24 „ ... ..	3,677	5·2	2,116	2·8	5,793	4·0	1·7	1·1	1·4
25-29 „ ... ..	4,233	5·9	2,969	3·6	7,202	4·8	1·9	1·5	1·8
30-34 „ ... ..	4,643	7·1	3,628	5·0	8,262	6·0	2·2	1·9	2·0
35-39 „ ... ..	5,272	7·6	3,664	5·3	8,936	6·5	2·4	1·9	2·2
40-44 „ ... ..	6,150	10·3	3,991	6·7	10,141	8·5	2·8	2·1	2·4
45-49 „ ... ..	5,470	12·1	3,056	7·0	8,526	9·5	2·5	1·6	2·0
50-54 „ ... ..	7,631	17·2	4,633	9·8	12,264	13·4	3·5	2·4	3·0
55-59 „ ... ..	4,035	22·4	1,934	10·6	5,969	16·5	1·9	1·0	1·4
60-64 „ ... ..	7,606	28·7	5,004	15·9	12,610	21·8	3·5	2·6	3·1
65-69 „ ... ..	4,670	53·0	2,973	34·4	7,643	43·7	2·2	1·5	1·8
70-74 „ ... ..	7,682	67·7	6,510	45·6	14,192	55·2	3·5	3·4	3·5
75-79 „ ... ..	3,469	140·4	2,975	117·6	6,444	128·9	1·6	1·5	1·6
80-84 „ ... ..	6,622	180·9	7,777	104·4	14,399	156·5	3·0	4·0	3·5
85 and over ... ..	11,386	625·6	18,338	742·4	29,724	692·9	5·3	9·5	7·4
Not stated ... ..	441	16·7	226	6·5	667	10·9	0·2	0·1	0·2
TOTAL ... ..	218,101	22·1	192,423	19·1	410,524	20·6	—	—	—



TABLE NO. 10.—INFANTILE MORTALITY BY CAUSES

Diseases of Infancy	Infantile deaths under one year									
	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Measles . . . . .	278	228	395	99	262	151	360	200	338	314
Whooping Cough . . . . .	14	22	28	43	32	28	13	18	11	21
Diphtheria . . . . .	37	70	68	81	59	85	59	57	67	55
Tuberculous diseases . . . . .	12	5	13	19	24	11	23	14	18	20
Syphilis . . . . .	240	161	150	234	165	130	135	121	147	131
Rickets and Osteomalacia . . . . .	227	189	189	183	180	176	128	132	221	165
Convulsions . . . . .	154	173	198	200	252	213	134	98	80	70
Bronchitis . . . . .	3,089	3,195	3,636	3,522	3,705	4,211	3,742	3,947	5,574	4,768
Broncho-Pneumonia . . . . .	1,749	794	936	1,036	1,095	959	1,145	950	874	1,095
Pneumonia . . . . .	645	200	277	301	347	393	497	536	606	621
Diarrhoea and Enteritis . . . . .	25,279	25,325	31,099	33,230	33,647	37,173	34,086	33,030	32,460	35,083
Congenital Defects of Conformation	71	73	81	78	137	199	150	91	164	64
Congenital Debility . . . . .	13,107	13,007	14,773	16,895	17,881	20,318	18,786	18,191	21,344	20,902
Premature Birth . . . . .	234	165	168	195	151	138	167	123	152	168
Consequences of Delivery . . . . .	63	66	47	80	74	113	132	138	115	140
Infanticide . . . . .	133	168	161	126	119	86	100	72	82	60
Accidents . . . . .	106	152	109	96	122	113	88	109	59	100
Other Causes . . . . .	1,652	1,546	1,585	1,841	1,983	1,909	1,475	1,553	1,205	1,137
<b>TOTAL . . . . .</b>	<b>47,090</b>	<b>45,539</b>	<b>53,913</b>	<b>58,259</b>	<b>60,235</b>	<b>66,396</b>	<b>61,220</b>	<b>59,380</b>	<b>63,516</b>	<b>64,914</b>

FOR LOCALITIES HAVING HEALTH OFFICES 1940—1949

Infantile Mortality rates per 1,000 live births.

1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
1.2	0.981	1.6	0.365	0.877	0.468	1.1	0.566	0.933	0.845
0.059	0.095	0.115	0.159	0.107	0.087	0.04	0.051	0.03	0.057
0.156	0.301	0.279	0.299	0.198	0.264	0.180	0.161	0.185	0.148
0.051	0.022	0.053	0.070	0.080	0.034	0.070	0.04	0.05	0.054
1.0	0.693	.616	0.664	0.652	0.453	0.413	0.343	0.406	0.553
0.958	0.814	0.776	0.676	0.603	0.546	0.391	0.374	0.610	0.444
0.65	0.745	0.813	0.738	0.844	0.660	0.410	0.277	0.221	0.188
13.0	13.8	14.9	13.0	12.4	13.1	11.4	11.2	15.4	12.8
7.4	3.4	3.8	3.8	3.7	3.0	3.5	2.7	2.4	2.9
2.7	0.861	1.1	1.1	1.2	1.2	1.5	1.5	1.7	1.7
106.4	109.0	127.6	122.7	112.6	115.2	104.2	93.5	89.6	94.4
.300	.314	.332	.288	.459	.617	.458	.258	.453	0.172
55.3	56.0	60.6	62.4	59.6	63.0	57.4	51.5	58.9	56.3
.988	.710	.690	.720	.505	.397	.510	.348	.420	0.452
.266	.284	.192	.295	.248	.350	.403	.391	.318	0.377
.561	.723	.661	.465	.398	.267	.306	.204	.226	0.161
.447	.654	.447	.354	.408	.350	.269	.309	.163	0.269
7.0	6.7	6.5	6.8	6.6	5.9	4.5	4.4	3.3	3.1
198.8	196.0	221.3	215.1	201.6	205.8	187.1	168.1	175.1	174.7

TABLE NO. 11.—INFANTILE MORTALITY BY AGE AND CAUSE

Diseases of Infancy	Weeks				
	Below 1 week	1-2	2-3	3-4	4-month
Measles ... ..	2	—	1	—	—
Whooping Cough ... ..	—	—	—	—	—
Diphtheria ... ..	—	—	—	—	—
Tuberculous diseases ... ..	—	—	—	—	—
Syphilis ... ..	40	12	13	4	—
Rickets and Osteomalacia ... ..	—	1	1	—	—
Convulsions ... ..	4	10	—	1	—
Bronchitis ... ..	34	46	32	26	1
Broncho-Pneumonia ... ..	12	11	18	9	4
Pneumonia ... ..	34	19	10	9	2
Diarrhoea and Enteritis ... ..	137	200	195	144	22
Congenital Defects of Conformation ... ..	34	7	—	3	—
Congenital Debility ... ..	5,275	2,968	1,906	839	99
Pemature Birth ... ..	137	11	7	1	—
Consequences of Delivery ... ..	116	11	—	—	—
Infanticide ... ..	54	2	—	—	—
Accidents ... ..	8	3	1	1	—
Other Causes ... ..	150	53	32	25	1
TOTAL ... ..	6,037	3,354	2,216	1,062	129



FOR LOCALITIES HAVING HEALTH OFFICES, 1949.

Months											TOTAL
1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9	9-10	10-11	11-12	
2	13	8	8	14	36	33	69	43	47	38	314
—	—	1	2	3	5	4	1	—	4	1	21
1	2	1	1	3	4	9	13	7	9	5	55
1	—	—	—	—	2	4	3	3	3	4	20
6	10	7	6	7	5	3	6	5	6	1	131
4	10	12	7	9	17	14	32	19	25	14	165
2	—	6	9	6	9	9	5	4	4	1	70
189	249	368	445	428	613	275	646	451	487	278	4768
37	55	63	79	88	150	118	151	116	125	59	1095
32	35	36	63	48	60	63	72	60	46	32	621
1,525	2,130	2,961	3,613	3,547	4,387	3,514	4,329	3,405	3,177	1,797	35,083
6	2	2	2	—	2	1	2	1	1	1	64
2,664	2,232	1,594	1,175	615	552	255	316	170	179	63	20,902
5	—	—	—	2	1	2	—	2	—	—	168
1	1	2	1	—	1	2	—	5	—	—	140
—	1	—	—	—	—	—	—	2	1	—	60
5	6	5	7	7	9	11	19	7	7	4	100
82	64	94	86	78	124	80	96	72	54	46	1,137
4,562	4,810	5,160	5,504	4,855	5,977	4,597	5,760	4,372	4,175	2,344	64,914

TABLE NO. 12.—STILL BIRTHS AND RATES FOR THE TWO SEXES  
BY GOVERNORATES AND PROVINCES 1949.

LOCALITES	Still Births			Still Birth-rate Per 1000 Live Births		
	Males	Females	TOTAL	Males	Females	TOTAL
Cairo ... ..	975	780	1,755	17·9	15·2	16·6
Alexandria ... ..	466	356	822	18·2	14·6	16·4
Ismailia ... ..	53	21	74	13·8	6·0	9·8
Port-Said ... ..	118	105	223	25·4	23·2	24·3
Damietta ... ..	71	34	105	48·7	25·0	37·2
Suez... ..	56	64	120	16·5	19·9	18·1
<b>TOTAL GOVERNORATES ... ..</b>	<b>1,739</b>	<b>1,360</b>	<b>3,099</b>	<b>18·6</b>	<b>15·4</b>	<b>17·0</b>
<b>FRONTIER DISTRICTS ... ..</b>	<b>40</b>	<b>27</b>	<b>67</b>	<b>10·5</b>	<b>7·2</b>	<b>8·9</b>
Behera ... ..	70	35	105	2·7	1·4	2·1
Dakahlia ... ..	194	140	334	5·5	4·2	4·8
Gharbia ... ..	291	158	449	5·2	2·9	4·1
Menoufia ... ..	168	100	268	5·9	3·7	4·9
Kaliubia ... ..	85	69	154	4·9	4·2	4·5
Sharkia ... ..	169	109	278	5·8	4·1	5·0
<b>TOTAL LOWER EGYPT ... ..</b>	<b>977</b>	<b>611</b>	<b>1,588</b>	<b>5·1</b>	<b>3·4</b>	<b>4·3</b>
Aswan ... ..	28	14	42	5·0	2·7	3·9
Assiut ... ..	104	83	187	3·6	3·4	3·5
Beni Suef ... ..	90	60	150	6·9	5·3	6·2
Fayoum ... ..	114	58	172	7·4	4·2	5·9
Gerga ... ..	76	54	130	3·3	3·1	3·2
Giza ... ..	125	92	217	6·1	5·0	5·5
Minia ... ..	105	48	153	4·6	2·2	3·4
Qena ... ..	51	31	82	2·7	2·2	2·5
<b>TOTAL UPPER EGYPT ... ..</b>	<b>693</b>	<b>440</b>	<b>1,133</b>	<b>4·7</b>	<b>3·5</b>	<b>4·1</b>
<b>GENERAL TOTAL ... ..</b>	<b>3,449</b>	<b>2,438</b>	<b>5,887</b>	<b>7·9</b>	<b>6·1</b>	<b>7·0</b>

## Chapter II.—INFECTIOUS DISEASES CONTROL

A total of 54,937 cases with 13,730 deaths of infectious diseases were notified throughout Egypt during the year 1949 or a case-rate of 275.4 and a death-rate of 68.8 per 100,000 of the population as compared with 44,522 cases with 12,150 deaths notified during 1948 or a case-rate of 228 and a death-rate of 62.1 .

The increase in the case incidence was due to a higher number of notified cases of typhoid fever, cerebro spinal fever, measles, pulmonary tuberculosis, pneumonia, influenza, whooping cough and mumps.

The following is a detailed study of the most important diseases :

### *Typhus :*

Table No. 13 shows that the case rate in 1949 dropped to 0.9 per 100,000 of the population *i.e.* the same rate as 1947. This drop may be attributed to the resumption of routine dusting of the population with insecticides in the second half of 1948 which had been stopped since the last quarter of 1947 following the outbreak of the overwhelming cholera epidemic and the various precautionary measures taken against it.

### *Small pox :*

Only three cases were notified throughout the country during the year 1949, two in Cairo and one in Gîza province.

Table No. 13 shows that there has been a steady fall in the incidence of small pox since 1945. This may be due to the routine measure adopted by the health authorities since 1945 of vaccinating one quarter of the population every year.

### *Plague :*

No cases of plague were notified during 1949.

### *Cerebro spinal meningitis (Tables 13-14) :*

205 cases with 57 deaths were reported during the year, or a case-rate of 1.0 and a death rate of 0.3 per 100,000 of the population, and a case-fatality-rate of 27.8 per cent as against 133 cases with 37 deaths in 1948 or a case-rate of 0.7 and a death-rate of 0.189 per 100,000 of the population and a case-fatality rate of 27.8 per cent. The highest case rate of 16.4 per 100,000 of the population was recorded in Port Said (Table No. 15).

### *Diphtheria :*

1,683 cases of diphtheria with 603 deaths were reported during the year or a case-rate of 8.4 and a death-rate of 3.0 per 100,000 of the population and a case-fatality-rate of 35.8 per cent as compared with 1,835 cases with 659 deaths in 1948 or a case-rate of 9.4 and a death-rate of 3.4 per 100,000 and a case-fatality-rate of 35.9 per cent. In Port Said, Damietta and Suez notifications were markedly greater in 1949 than in 1948, while in other localities these were more or less the same.

### *Typhoid and Paratyphoid fever :*

A total of 7,110 cases with 814 deaths were reported from all Egypt during the year or a case rate of 35.6, a death rate of 4.1 per 100,000 of the population and a case-fatality-rate of 11.4 per cent. In 1948, the total number of cases notified was 5,513 with 814 deaths, or a case-rate of 28.3, a death rate of 4.1 per 100,000 of the population and a case-fatality-rate of 14.7 per cent.

The rise in the case incidence is explained by the restriction of the sale of chloromycin for treatment to patients notified to health authorities only.



TABLE NO. 13.—INFECTIOUS DISEASES CASES AND DEATHS AND

Diseases		1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Plague ... ..	C	1,491	14	15	163	644	218	211	15	0	0
	D	238	6	10	111	393	108	57	5	0	0
Typhus ... ..	C	4,416	9,414	22,045	40,182	18,477	18,283	1,548	173	325	180
	D	863	1,751	4,411	8,252	4,043	3,627	337	53	71	53
Small Pox ... ..	C	2	0	0	4,138	11,194	1,355	416	170	16	3
	D	0	0	0	384	1,016	115	50	18	4	1
Typhoid fever ... ..	C	4,841	5,758	6,814	4,431	5,019	5,286	4,584	4,601	55,13	7,110
	D	934	1,179	1,257	790	790	833	637	685	814	814
Scarlet Fever... ..	C	105	91	39	54	30	12	11	10	9	18
	D	3	0	2	3	0	1	0	2	0	1
Cesebro Spinal Fever ... ..	C	191	159	212	114	174	65	88	94	133	205
	D	96	94	101	57	75	49	44	32	37	57
Diphtheria ... ..	C	2,433	4,037	3,950	4,143	3,326	3,130	2,047	1,809	1,835	1,683
	D	1,178	1,932	1,882	1,595	1,264	1,159	823	591	659	603
Measles ... ..	C	14,697	9,769	9,764	4,249	7,274	5,444	6,968	6,886	6,485	11,311
	D	3,581	2,870	3,654	1,022	2,475	1,413	1,826	1,336	2,408	2,603
Pulmonary T.B. ... ..	C	6,236	6,296	6,608	6,770	6,950	6,819	6,407	6,523	6,614	7,219
	D	2,786	3,021	3,472	3,647	3,803	3,681	3,671	3,581	3,718	3,812
Acute Pneumonia... ..	C	3,545	5,414	6,215	6,935	6,929	5,805	5,420	5,797	5,074	7,458
	D	4,939	4,843	5,296	5,762	5,242	4,848	4,432	3,948	3,561	4,898
Chicken Pox ... ..	C	1,351	1,862	870	1,238	1,057	1,338	873	1,755	1,722	1,611
	D	15	15	8	21	15	12	11	7	1	6
Puerperal Septicaemia... ..	C	489	461	332	375	375	387	266	310	296	291
	D	340	344	208	187	158	178	145	101	94	71
Dysentery ... ..	C	2,205	3,447	3,553	1,872	1,672	1,217	1,130	1,359	1,249	1,130
	D	385	509	577	604	537	384	329	245	228	208
Influenza ... ..	C	9,763	11,120	12,965	14,056	11,203	14,642	17,570	5,711	5,136	6,330
	D	180	178	218	219	204	152	67	42	38	86
Malaria New ... ..	C	0	0	0	0	37,847	5,887	9,262	6,747	4,445	2,817
	D	13,444	9,320	20,937	16,530	1,867	56	22	31	23	17
,, Recurrent ... ..	C	68	104	394	1,341	218231	141557	5,686	3,365	1,493	1,392
	D	0	0	0	0	14	19	4	1	1	0
Anthrax ... ..	C	22	22	21	15	13	4	6	9	2	1
	D	5	5	4	9	2	2	1	1	0	1
Whooping Cough ... ..	C	3,238	2,923	2,257	2,054	1,208	1,856	904	2,189	770	1,385
	D	172	173	142	105	105	92	54	63	27	74
Parotitis (Mumps)... ..	C	1,704	1,755	1,453	1,449	1,063	1,743	1,290	1,880	1,389	2,628
	D	27	19	30	31	30	27	13	9	8	7
Undulant Fever ... ..	C	27	20	9	6	20	15	22	14	28	78
	D	2	0	2	4	3	2	2	1	6	4
Leprosy ... ..	C	545	511	520	393	224	332	124	162	149	198
	D	69	79	82	68	58	53	55	51	61	69
Tetanus ... ..	C	476	433	459	442	544	439	435	443	414	418
	D	310	314	313	294	331	303	354	309	309	272
Acute Poliomyelitis ... ..	C	16	16	5	7	11	7	2	11	6	13
	D	6	9	1	2	4	6	6	14	8	9
Erysipelas ... ..	C	4,827	4,502	3,100	1,956	1,671	1,551	1,181	1,460	1,413	1,458
	D	466	468	312	209	156	146	88	91	75	64
Relapsing Fever ... ..	C	1	0	0	0	10	18,126	110405	229	6	0
	D	0	0	0	0	0	880	2,414	30	0	0

RATES PER 100,000 POPULATION 1940—1949.

1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
2.9	.082	.087	.093	3.7	1.2	1.2	.078	—	—
1.4	.035	.058	.637	2.2	.603	.314	.026	—	—
26.3	55.3	128.0	230.7	104.8	102.0	8.5	.904	1.3	0.9
5.1	10.3	25.6	47.4	22.9	20.2	1.9	.277	.363	.3
.012	—	—	23.8	63.5	7.6	2.2	.887	.082	.051
—	—	—	2.2	5.8	.642	.276	.094	.020	.005
28.9	33.8	39.6	25.4	28.5	29.5	25.2	24.0	28.3	35.6
5.6	6.9	7.3	4.5	4.5	4.6	3.5	3.6	4.1	4.1
.626	.534	.256	.310	.17	.067	.06	.052	.046	.09
.018	—	.012	.017	—	.006	—	.01	—	.005
1.1	.934	1.2	.654	.834	.363	.48	.491	.680	1.0
.572	.552	.586	.327	.426	.273	.243	.167	.189	.3
14.5	23.5	22.9	23.8	18.9	17.5	11.2	9.5	9.4	8.4
7.0	11.3	10.9	1.2	7.2	6.5	4.5	3.1	3.4	3.0
89.3	57.4	56.7	24.4	41.3	30.4	38.4	36.0	33.2	56.7
21.3	16.9	21.2	5.9	14.0	7.9	9.5	7.0	12.3	13.0
37.2	36.9	18.4	38.9	39.4	38.1	35.3	34.0	33.8	36.2
16.6	17.8	20.2	20.9	21.6	20.5	20.2	18.7	19.0	19.1
21.1	31.8	36.0	39.8	39.3	12.4	29.9	30.2	25.9	37.4
21.4	28.4	30.7	33.1	29.7	27.0	24.4	20.6	18.2	24.6
8.0	10.9	5.1	7.1	6.0	7.5	4.8	9.2	8.8	8.1
.089	.088	.046	.12	.085	.067	.061	.037	.005	.005
2.9	2.7	1.9	2.2	20.3	2.2	1.5	1.6	1.5	1.5
2.0	2.0	1.2	1.1	.896	.993	.799	.725	.481	.4
13.2	20.2	20.6	10.7	9.5	6.8	6.2	7.1	6.4	5.7
2.3	3.0	3.3	3.5	3.0	2.1	1.8	1.3	1.2	1.0
54.2	65.3	75.3	80.7	63.6	81.7	96.8	29.8	26.3	31.7
1.1	1.1	1.3	1.3	1.2	.848	.369	.214	.194	.4
—	—	—	—	214.7	32.9	51.1	35.2	22.7	14.1
80.2	54.7	121.5	94.9	10.6	.312	.121	.172	.118	.09
.405	.611	2.3	7.7	1238.2	789.8	31.3	17.6	7.6	7.0
—	—	—	—	.079	.106	.022	.005	—	—
.131	.129	.122	.086	.074	.022	.03	.047	.01	.005
.03	.03	.023	.052	.011	.011	.006	.005	—	.005
19.3	17.2	13.1	11.8	6.9	10.4	5.0	11.4	3.9	6.9
1.0	1.02	.824	.603	.596	.513	.298	.329	.138	.4
10.2	10.3	8.4	8.3	6.03	9.7	7.1	9.8	7.1	13.2
.16	.112	.174	.178	.17	.151	.072	.047	.041	.04
.161	.117	.052	.034	.113	.084	.12	.06	.143	.4
.012	0	.012	.023	.017	.011	.011	.005	.031	.02
3.3	3.0	3.0	2.3	1.3	1.9	.68	.845	.762	1.0
.411	.464	.476	.39	.329	.296	.303	.266	.311	.3
2.8	2.5	2.7	2.5	3.1	2.5	2.4	2.3	2.1	2.1
1.8	1.8	1.8	1.7	1.9	1.7	2.5	1.6	1.6	1.4
.095	.094	.029	.04	.062	.039	.01	.058	.031	.07
.036	.053	.006	.011	.027	.033	.033	.073	.141	.05
28.8	26.4	18.5	11.2	9.5	8.7	6.5	7.6	7.2	7.3
2.8	2.7	1.8	1.2	.885	.815	.485	.474	.383	.3
—	—	—	—	.057	95.6	6.08	1.2	.031	—
—	—	—	—	—	4.9	1.3	.156	—	—



TABLE NO. 14.—INFECTIOUS DISEASES

Localities	Plague		Typhus		Small Pox		Relapsing fever		Typhoid fever		Scarlet fever	
	48	49	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	—	—	31	14	1	2	—	—	2,578	4,091	4	8
Alexandria ... ..	—	—	9	11	—	—	—	—	1,111	743	4	5
Ismailia .. ...	—	—	—	—	4	—	—	—	30	33	—	—
Port Said ... ..	—	—	7	—	1	—	—	—	537	671	1	4
Damietta ... ..	—	—	—	—	—	—	—	—	34	23	—	—
Suez... ..	—	—	1	2	3	—	—	—	98	132	—	—
Frontier Districts ... ..	—	—	1	—	1	—	—	—	57	36	—	—
Behera..... ..	—	—	149	13	—	—	6	—	171	173	—	—
Dakahlia ... ..	—	—	39	75	—	—	—	—	110	103	—	—
Gharbia ... ..	—	—	46	7	—	—	—	—	121	206	—	—
Menoufia... ..	—	—	4	16	—	—	—	—	56	77	—	1
Kaliubia ... ..	—	—	11	—	1	—	—	—	76	127	—	—
Sharkia ... ..	—	—	11	3	1	—	—	—	54	93	—	—
Aswan ... ..	—	—	—	—	—	—	—	—	2	6	—	—
Assiut ... ..	—	—	4	—	1	—	—	—	89	77	—	—
Beni Suef ... ..	—	—	1	—	—	—	—	—	21	15	—	—
Fayoum ... ..	—	—	—	—	—	—	—	—	36	71	—	—
Gerga ... ..	—	—	1	1	—	—	—	—	50	61	—	—
Giza... ..	—	—	7	36	2	1	—	—	217	284	—	—
Minia ... ..	—	—	2	—	1	—	—	—	35	56	—	—
Qena... ..	—	—	1	2	—	—	—	—	30	32	—	—
TOTAL ... ..	—	—	325	180	16	3	6	—	5,513	7,110	9	18



CASES 1948—1949

C.S.M.		Diphtheria		Measles		Pulmonary Tuberculosis		Acute Pneumonia		Chicken Pox		Puerperal Sep.	
48	49	48	49	48	49	48	49	48	49	48	49	48	49
48	133	950	809	1,988	1,815	3,508	3,599	2,097	2,457	641	661	114	118
8	9	223	191	694	3,631	1,000	1,087	1,936	3,587	516	269	91	84
—	—	8	8	19	1	3	1	—	38	1	4	—	—
51	31	49	83	144	71	245	212	212	284	57	109	—	4
—	—	3	11	7	22	5	20	19	15	27	2	—	1
—	1	33	62	69	64	67	138	111	177	19	54	4	2
7	—	—	6	203	153	15	15	35	6	40	57	3	2
1	—	31	16	97	517	119	89	53	89	45	60	2	6
6	2	43	49	634	534	215	301	49	67	48	48	5	8
2	10	77	130	79	511	291	410	59	128	70	65	5	6
—	1	56	46	390	490	104	141	28	18	47	36	8	10
—	—	63	43	487	168	136	133	42	81	33	39	5	5
7	7	54	44	280	531	166	131	32	31	52	59	5	1
—	—	14	17	3	6	34	91	7	8	32	7	1	6
—	3	45	42	286	63·9	112	163	77	126	9	15	19	10
1	—	11	4	3	164	72	139	5	5	8	9	4	6
—	—	7	13	158	134	158	160	89	45	3	5	5	2
—	—	18	9	25	396	58	80	40	46	1	6	4	1
—	6	105	55	470	803	90	129	119	162	40	66	11	7
1	1	16	29	298	496	132	49	31	34	18	31	6	8
1	1	29	16	153	165	82	131	33	58	15	9	4	4
133	205	1,835	1,683	6,485	11,311	6,614	7,219	5,074	2,458	1,722	1,611	296	291

TABLE NO. 14.—INFECTIOUS DISEASES

Localities	Dysentery		Influenza		Malaria New		Malaria Recurrent		Anthrax	
	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	169	160	1,348	2,139	546	607	17	34	—	—
Alexandria ... ..	396	259	1,671	1,457	241	204	—	—	—	—
Ismailia ... ..	1	3	28	21	48	52	2	—	—	—
Port Said ... ..	37	17	452	484	106	104	—	—	—	—
Damietta ... ..	—	—	36	40	59	4	—	—	—	—
Suez... ..	57	58	180	136	87	23	33	8	—	—
Frontier Districts ... ..	62	80	85	55	260	18	—	2	—	—
Behera ... ..	3	11	124	168	679	30	1	—	—	—
Dakahlia ... ..	5	9	94	187	209	107	7	6	1	—
Gharbia ... ..	13	76	144	378	224	575	1	599	1	1
Menoufia ... ..	17	13	95	139	45	87	6	36	—	—
Kaliubia ... ..	7	8	173	231	1,068	230	4	16	—	—
Sharkia ... ..	57	34	53	57	478	110	—	16	—	—
Aswan ... ..	17	14	23	55	29	4	3	15	—	—
Assiut ... ..	79	53	126	137	10	32	—	—	—	—
Beni Suef ... ..	5	11	51	60	26	50	1	6	—	—
Fayoum ... ..	18	45	31	23	120	82	1,398	611	—	—
Gerga ... ..	9	5	45	71	2	7	—	—	—	—
Gîza ... ..	20	15	196	244	105	249	—	—	—	—
Minia ... ..	102	106	94	138	126	29	—	8	—	—
Qena ... ..	175	153	77	110	7	13	20	25	0	—
TOTAL ... ..	1,249	1,130	5,136	6,330	4,445	2,817	1,493	1,392	2	1

CASES 1948—1949 (Contd.)

Whooping Cough		Parotitis		Undulant fever		Leprosy		Tetanus		Acute Poliomyelitis		Erysipelas		TOTAL	
48	49	48	49	48	49	48	49	48	49	48	49	48	49	48	49
102	328	297	1,079	18	31	5	10	73	63	—	1	308	305	148,43	18,460
86	149	598	395	—	2	4	19	44	54	3	9	583	516	9,218	12,681
—	—	1	3	—	—	—	—	6	9	—	—	6	2	157	175
—	9	12	46	—	1	2	1	9	18	—	2	69	75	1,991	2,225
—	1	2	1	—	—	—	2	2	1	—	—	3	8	197	152
5	3	18	24	—	1	—	2	2	4	—	—	4	14	791	905
45	10	6	244	—	—	—	1	—	—	—	—	2	7	802	692
9	10	17	24	—	—	4	17	45	37	—	—	38	43	1,594	1,303
82	126	9	7	—	1	25	16	22	24	—	—	75	77	1,678	1,747
50	42	56	126	1	4	8	8	38	55	3	1	106	131	1,395	3,469
57	31	14	151	1	3	17	32	26	24	—	—	68	73	1,039	1,425
18	9	9	200	—	3	12	5	18	11	—	—	32	37	2,195	1,346
6	35	112	34	—	—	19	14	28	14	—	—	29	37	1,444	1,251
1	—	82	33	—	—	1	1	5	—	—	—	1	10	255	273
14	20	2	64	—	—	7	9	29	25	—	—	19	19	928	1,434
3	22	2	1	—	—	3	1	5	5	—	—	5	7	227	505
96	400	3	21	2	1	2	3	9	4	—	—	7	24	2,142	1,644
40	32	3	4	—	—	16	16	9	12	—	—	6	8	327	755
60	99	34	133	5	31	10	7	15	16	—	—	25	18	1,531	2,361
10	55	99	7	1	—	7	18	27	29	—	—	19	37	1,025	1,341
86	4	13	31	0	—	7	16	2	13	—	—	8	10	743	793
770	1,385	1,389	2,628	28	78	149	198	414	418	6	13	1,413	1,458	44,522	54,937



TABLE NO. 15. — INFECTIOUS DISEASES CASE

Localities	Plague		Typhus		Small-Pox		Relapsing fever		Typhoid fever	
	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	—	—	1·5	·6	·047	·1	—	—	120·9	187·9
Alexandria ... ..	—	—	·945	1·1	—	—	—	—	116·6	75·9
Ismailia ... ..	—	—	—	—	3·6	—	—	—	26·8	28·7
Port Said ... ..	—	—	3·8	—	·543	—	—	—	291·5	335·0
Damietta ... ..	—	—	—	—	—	—	—	—	61·1	40·1
Suez ... ..	—	—	·891	1·7	2·7	—	—	—	87·3	114·7
Frontier Districts ... ..	—	—	·578	—	·578	—	·469	—	32·9	20·3
Behera... ..	—	—	11·6	1	—	—	—	—	13·4	13·2
Dakahlia ... ..	—	—	2·7	5·0	—	—	—	—	7·6	6·9
Gharbia ... ..	—	—	1·9	·28	—	—	—	—	5·0	8·4
Menoufia ... ..	—	—	·334	1·3	—	—	—	—	4·7	6·3
Kaliubia ... ..	—	—	1·5	—	·140	—	—	—	10·7	17·5
Sharkia ... ..	—	—	·817	·22	·074	—	—	—	4·0	6·9
Aswan ... ..	—	—	—	—	—	—	—	—	·672	2·0
Assiut ... ..	—	—	·284	—	·071	—	—	—	6·3	5·4
Beni Suef ... ..	—	—	·159	—	—	—	—	—	3·3	2·3
Fayoum ... ..	—	—	—	—	—	—	—	—	5·2	10·1
Gerga ... ..	—	—	·075	·07	—	—	—	—	3·8	4·5
Giza ... ..	—	—	1·0	4·0	·227	·11	—	—	24·7	31·7
Minia ... ..	—	—	186	—	·093	—	—	—	3·3	5·1
Qena ... ..	—	—	·088	·17	—	—	—	—	2·6	2·8
TOTAL ... ..	—	—	1·3	0·9	·032	·015	·031	—	28·2	35·6

RATES PER 100,000 POPULATION 1948 AND 1949.

Scarlet fever		C.S.M.		Diphtheria		Measles		Pulmonary T.B.		Acute Pneumonia		Chicken Pox		Puerperal Sep.	
48	49	48	49	48	49	48	49	48	49	48	49	48	49	48	49
·184	·4	2·2	6·1	44·5	37·1	93·2	83·3	161·1	165·2	96·5	112·6	29·4	30·3	7·8	5·4
·420	·5	·84	·9	23·4	19·5	72·8	37·1	105·0	111·1	203·3	366·5	54·1	27·5	9·5	8·6
—	—	—	—	7·1	7·0	17·0	·9	2·7	·09	—	33·1	·894	3·5	—	—
·543	2·1	27·7	16·4	26·6	44·4	78·1	37·6	133·0	112·2	115·1	150·3	30·9	57·7	—	2·1
—	—	—	—	5·4	19·2	12·6	38·4	9·0	35·1	34·1	26·1	48·5	3·5	—	1·8
2	—	—	·8	29·4	53·9	61·5	55·6	59·7	119·9	98·9	153·8	16·9	46·9	3·7	1·7
—	—	4·0	—	—	3·4	116·2	86·3	8·7	8·5	20·2	3·4	23·1	32·3	1·7	1·1
—	—	·78	—	2·4	1·2	7·6	39·5	9·3	6·8	4·1	6·8	3·5	4·6	·156	·5
—	—	·412	·13	3·0	3·3	43·6	35·9	14·8	20·2	3·4	4·5	3·3	3·2	·344	·5
—	—	·083	·4	3·2	5·3	3·35	20·8	12·1	16·7	2·5	5·2	2·9	2·6	·208	·24
—	·08	—	·08	4·7	3·8	32·5	40·2	8·7	11·6	2·3	1·5	3·9	3·0	·667	·82
—	—	—	—	8·8	5·9	68·3	23·1	19·1	18·3	5·9	11·1	4·6	5·4	·701	·69
—	—	·52	·51	4·0	3·2	20·8	38·7	12·3	9·6	23·8	2·3	3·9	4·3	·372	·07
—	—	—	—	4·7	5·6	1·0	2·0	11·4	29·8	2·4	2·6	10·8	2·3	·336	2·0
—	—	—	·21	3·2	2·9	20·3	44·6	8·0	11·4	5·5	8·8	·639	1·0	1·3	·7
—	—	1·59	—	1·7	·6	·477	25·6	11·5	21·7	·795	·8	1·3	1·4	·636	·9
—	—	—	—	1·2	1·9	22·9	19·2	22·5	22·9	12·9	6·4	·435	·72	·725	29
—	—	—	—	1·4	·67	1·9	29·4	4·4	5·9	3·0	3·4	·075	·45	·302	·07
—	—	—	·67	11·9	6·1	53·4	89·6	10·2	14·4	13·5	18·1	4·5	7·4	1·3	·78
—	—	·093	·09	1·5	2·6	27·7	15·2	12·3	4·5	2·9	3·1	1·7	2·8	·558	·73
—	—	·088	·08	3·6	1·4	17·5	14·3	7·2	11·4	2·9	5·0	1·3	·78	·353	·03
·046	·09	·680	1·0	9·4	8·4	33·2	56·7	33·8	36·2	25·9	37·4	8·8	8·1	1·5	1·5

TABLE NO. 15. — INFECTIOUS DISEASES CASE

Localities	Dysentery		Influenza		Malaria New		Malaria Recurrent		Anthrax	
	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	7·8	7·3	61·9	98·2	25·1	27·9	·78	1·6	—	—
Alexandria ... ..	41·5	26·5	175·3	148·9	25·3	30·8	—	—	—	—
Ismailia ... ..	·894	2·6	25·0	18·3	42·9	45·3	1·8	—	—	—
Port Said ... ..	20·1	9·0	245·4	256·1	57·5	55·0	—	—	—	—
Damietta ... ..	—	—	64·6	7·0	105·9	·7	—	—	—	—
Suez ... ..	50·8	50·4	160·4	118·2	77·5	20·0	29·4	7·0	—	—
Frontier Districts ... ..	35·8	45·2	54·9	31·0	13·3	10·2	—	1·1	—	—
Behera... ..	·234	·8	9·7	12·8	53·1	2·3	·078	—	—	—
Dakahlia ... ..	·344	·6	6·5	12·6	14·4	·72	·482	·4	·069	—
Gharbia ... ..	·542	3·1	6·0	15·4	9·3	23·4	·042	24·4	·062	·04
Menoufia..... ..	1·4	1·1	7·9	11·4	3·8	7·1	·5	3·0	—	—
Kaliubia ... ..	·981	1·1	24·2	31·8	149·7	31·8	·561	2·2	—	—
Sharkia ... ..	4·2	2·5	3·9	4·2	35·5	8·0	—	1·2	—	—
Aswan ... ..	5·7	4·6	7·7	18·0	9·7	1·3	1·0	4·6	—	—
Assiut ... ..	5·6	3·7	8·9	9·6	7·1	2·2	—	—	—	—
Beni Suef ... ..	·795	1·7	8·1	9·3	4·1	7·8	·159	·9	—	—
Fayoum ... ..	2·6	6·4	4·5	3·3	17·4	11·7	202·8	87·3	—	—
Gerga ... ..	·678	·4	3·4	5·3	·151	·5	—	—	—	—
Gîza ... ..	2·3	1·7	22·3	27·2	11·9	27·8	—	—	—	—
Minia ... ..	9·5	9·6	8·7	12·6	11·7	2·6	—	·73	—	—
Qena ... ..	15·4	13·3	6·8	9·6	·618	1·1	·177	2·2	—	—
TOTAL ... ..	6·4	5·7	26·3	31·7	22·7	14·1	7·6	7·6	·01	·005



RATES PER 100,000 POPULATION 1948 AND 1949 (contd.)

Whooping cough		Parotitis		Undulant fever		Leprosy		Tetanus		Acute Poliomyelitis		Erysipelas		TOTAL	
48	49	48	49	48	49	48	49	48	49	48	49	48	49	48	49
4.7	15.1	13.6	49.5	.826	1.4	.229	.5	3.3	2.9	—	.05	14.1	14.0	—	847.3
9.0	15.2	62.7	40.4	—	.2	.42	1.9	4.6	5.5	.315	.9	61.2	52.7	—	1295.8
—	—	.894	2.6	—	—	—	—	5.4	7.8	—	—	5.4	1.7	—	152.4
—	4.8	6.5	24.3	—	.5	1.1	.5	4.9	9.6	—	1.0	37.5	39.7	—	1177.2
—	1.7	3.6	1.7	—	—	—	2.4	3.6	1.7	—	—	5.4	13.9	—	264.8
4.5	2.6	16.0	20.9	—	.8	—	1.7	1.8	3.4	—	—	3.6	12.3	—	786.3
26.0	5.6	3.4	137.7	—	—	—	.6	—	—	—	—	1.2	4.0	—	390.5
.703	.8	1.3	1.8	—	—	.313	1.3	3.5	2.8	—	—	3.0	3.3	—	99.6
5.6	8.5	.618	.5	—	.07	1.7	1.0	1.5	1.6	—	—	5.2	5.2	—	117.4
2.1	1.7	2.3	5.1	.069	.2	.333	.4	1.6	2.2	.125	.04	4.4	5.3	—	141.3
4.8	2.5	2.1	12.4	.042	.2	1.4	2.5	2.2	2.0	—	—	5.7	6.0	—	117.0
2.5	1.0	1.3	27.5	—	.4	1.7	6.9	2.5	1.5	—	—	4.5	7.1	—	185.3
.446	2.5	8.3	2.5	—	—	1.4	1.0	2.1	1.0	—	—	2.2	2.7	—	91.3
.336	—	27.6	10.8	—	—	.336	.3	1.7	—	—	—	.336	3.3	—	89.3
.099	1.4	.142	4.5	—	—	.497	.6	2.1	1.7	—	—	1.3	1.3	—	100.2
.477	3.4	.318	.2	—	—	.318	.2	.795	.8	—	—	.795	1.1	—	78.7
13.9	57.2	.435	3.0	.290	.1	.291	.4	1.3	.6	—	—	1.0	3.4	—	235.0
3.0	2.4	.226	.3	—	—	1.2	1.2	.679	.9	—	—	.453	.6	—	56.1
6.8	11.0	3.9	14.8	.569	3.5	1.1	.78	1.7	1.8	—	—	2.8	2.0	—	263.5
.930	5.0	9.2	.64	.093	—	.651	9.8	2.5	2.6	—	—	1.8	3.4	—	122.1
7.6	.03	1.9	2.7	—	—	.618	1.4	.177	1.1	—	—	.706	.9	—	68.9
3.9	6.9	7.1	1.32	.143	.4	.762	1.0	2.1	2.1	.031	0.7	7.2	7.3	—	275.4

TABLE No. 16.—INFECTIOUS DISEASES

Localities	Plague		Typhus		Small Pox		Relapsing fever		Typhoid fever	
	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	—	—	1	2	—	—	—	—	310	35
Alexandria ... ..	—	—	3	5	—	—	—	—	155	9
Ismailia ... ..	—	—	—	—	—	—	—	—	6	
Port Said ... ..	—	—	—	—	—	—	—	—	34	2
Damietta ... ..	—	—	—	—	—	—	—	—	14	
Suez... ..	—	—	—	—	1	—	—	—	13	2
Frontier Districts ... ..	—	—	—	—	—	—	—	—	4	
Behera ... ..	—	—	35	9	—	—	—	—	26	3
Dakahlia ... ..	—	—	9	20	—	—	—	—	20	1
Gharbia ... ..	—	—	7	1	—	—	—	—	32	4
Menoufia ... ..	—	—	1	5	—	—	—	—	19	2
Kaliubia... ..	—	—	5	—	—	—	—	—	17	2
Sharkia ... ..	—	—	5	3	—	—	—	—	11	23
Aswan ... ..	—	—	—	—	—	—	—	—	3	2
Assiut ... ..	—	—	—	—	1	—	—	—	21	16
Beni-Suef ... ..	—	—	2	—	—	—	—	—	8	3
Fayoum ... ..	—	—	—	—	—	—	—	—	7	8
Gerga ... ..	—	—	—	—	—	—	—	—	6	20
Giza ... ..	—	—	3	7	—	—	—	—	83	72
Minia ... ..	—	—	—	—	1	1	—	—	12	8
Qena ... ..	—	—	—	1	1	—	—	—	13	13
TOTAL ... ..	—	—	71	53	4	1	—	—	814	814

DEATHS 1948—1949

Scarlet fever		C.S.M.		Diphtheria		Measles		Pulmonary T.B.		Acute Pneumonia		Chicken pox		Puerperal fever	
48	49	48	49	48	49	48	49	48	49	48	49	48	49	48	49
—	—	7	30	188	151	1,250	771	1,480	1,455	1,734	1,736	—	1	31	19
—	—	7	4	50	53	47	513	627	614	859	1,697	—	3	9	8
—	—	—	—	—	3	39	14	42	44	83	205	—	—	3	—
—	—	9	3	10	19	187	16	129	131	66	45	—	—	2	—
—	—	—	—	4	3	—	1	20	22	4	4	—	—	—	—
—	—	—	—	21	19	2	3	21	31	25	31	—	—	—	—
—	—	2	—	—	2	58	33	2	10	4	4	—	—	—	1
—	—	—	—	22	14	23	86	140	165	25	44	—	—	4	4
—	—	4	—	32	19	145	105	173	152	41	43	—	—	2	5
—	—	3	4	51	80	34	76	197	203	99	247	—	—	3	4
—	1	1	—	55	38	31	56	77	97	48	53	—	1	5	3
—	—	—	—	33	27	57	14	70	96	60	62	1	—	2	1
—	—	3	3	27	22	127	77	96	97	82	104	—	—	3	2
—	—	—	—	16	16	1	5	38	42	34	58	—	—	2	1
—	—	—	—	27	24	95	227	72	128	34	76	—	—	6	9
—	—	—	1	11	8	12	39	37	68	88	171	—	—	4	2
—	—	—	1	7	10	21	29	80	100	24	14	—	—	3	3
—	—	—	—	18	12	8	248	86	44	33	49	—	—	—	1
—	—	1	11	51	37	142	128	209	159	121	110	—	—	—	3
—	—	—	—	13	30	42	68	87	81	86	44	—	1	2	2
—	—	—	—	23	16	87	94	85	46	71	101	—	—	3	3
—	1	37	57	659	603	2,408	2,603	3,718	3,812	3,561	4,898	1	6	94	71



TABLE NO. 16. — INFECTIOUS DISEASES

Localities	Dysentery		Influenza		Malaria New-Cases		Malaria Recurrent		Anthrax	
	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	103	66	2	14	4	3	—	—	—	1
Alexandria ... ..	51	48	1	—	1	1	—	—	—	—
Ismailia ... ..	4	4	—	1	—	1	—	—	—	—
Port Said ... ..	5	4	1	1	—	1	—	—	—	—
Damietta ... ..	—	1	1	—	1	—	—	—	—	—
Suez... ..	1	—	1	—	—	1	—	—	—	—
Frontier Districts... ..	—	—	2	—	—	—	—	—	—	—
Behera ... ..	7	10	4	13	—	—	—	—	—	—
Dakahlia ... ..	5	6	—	6	—	1	—	—	—	—
Gharbia ... ..	7	19	3	7	3	3	—	—	—	—
Menoufia ... ..	4	4	1	5	1	—	—	—	—	—
Kaliubia ... ..	6	3	3	2	—	1	—	—	—	—
Sharkia ... ..	6	10	1	—	4	1	—	—	—	—
Aswan ... ..	1	4	0	8	2	—	—	—	—	—
Assiut ... ..	15	10	3	2	—	—	—	—	—	—
Beni Suef ... ..	1	1	1	13	1	—	—	—	—	—
Fayoum ... ..	2	1	—	—	1	—	—	—	—	—
Gerga ... ..	1	6	1	—	1	—	—	—	—	—
Giza ... ..	4	3	4	3	—	3	—	—	—	—
Minia ... ..	2	5	3	8	—	—	—	—	—	—
Qena ... ..	3	3	6	3	3	1	—	—	—	—
TOTAL ... ..	228	208	308	86	23	17	—	—	—	1

DEATHS 1948 — 1949 (contd.)

Whooping Cough		Parotitis		Undulant fever		Leprosy		Tetanus		Poliomyelitis		Erysipelas		TOTAL	
48	49	48	49	48	49	48	49	48	49	48	49	48	49	48	49
8	19	2	3	1	—	8	7	32	25	1	—	20	17	5,182	4,678
4	7	1	—	—	—	—	—	24	2	2	2	7	10	1,848	3 116
—	1	1	—	—	—	—	—	3	8	1	—	1	—	183	287
—	3	—	—	—	—	—	—	3	3	—	2	4	2	450	253
—	—	—	—	—	—	—	—	2	3	—	—	—	1	47	38
—	—	—	—	—	—	—	—	1	1	1	—	1	0	88	108
3	—	—	—	—	—	—	—	—	—	—	—	1	1	76	54
1	4	—	—	—	—	4	1	32	32	—	—	5	2	327	420
4	11	—	2	—	—	4	2	14	16	—	—	6	1	459	405
—	3	1	—	1	—	5	1	40	43	3	1	3	6	489	734
1	—	—	1	—	—	1	9	26	14	—	1	4	6	283	314
—	—	—	—	—	1	2	6	14	10	—	—	6	1	278	245
2	4	—	—	—	—	—	—	24	15	—	—	2	2	394	363
1	—	—	—	—	—	2	1	3	0	—	1	—	—	102	138
2	2	—	—	—	—	8	4	19	14	—	—	7	4	314	516
—	4	—	—	—	—	1	1	9	4	—	—	—	—	175	315
—	7	1	—	—	—	—	3	13	3	—	—	3	4	162	183
—	—	—	1	—	—	5	2	4	13	—	—	1	1	119	397
—	9	—	—	2	3	1	17	22	16	—	1	1	2	152	585
—	—	—	—	2	—	5	9	21	17	—	—	2	4	216	277
1	—	2	—	—	—	5	6	4	7	—	1	1	0	306	295
27	74	8	7	6	4	51	69	309	272	8	9	75	64	12,150	13,730

TABLE NO. 17. —INFECTIOUS DISEASES DEATH

Localities	Plague		Typhus		Small Pox		Relapsing fever		Typhoid fever	
	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	—	—	·047	·1	—	—	—	—	14·5	16·4
Alexandria ... ..	—	—	·315	·5	—	—	—	—	16·5	9·9
Ismailia ... ..	—	—	—	—	—	—	—	—	·536	5·2
Port Said ... ..	—	—	—	—	—	—	—	—	18·5	12·2
Damietta ... ..	—	—	—	—	—	—	—	—	25·3	5·2
Suez ... ..	—	—	—	—	·891	—	—	—	11·6	19·1
Frontier Districts ... ..	—	—	—	—	—	—	—	—	2·3	1·7
Behera... ..	—	—	2·7	·7	—	—	—	—	2·0	2·8
Dakahlia ... ..	—	—	·618	·13	—	—	—	—	1·4	1·1
Gharbia ... ..	—	—	·292	0·4	—	—	—	—	1·3	1·8
Meroufia ... ..	—	—	·083	—	—	—	—	—	1·6	1·6
Kaliubia ... ..	—	—	·701	—	—	—	—	—	2·4	2·9
Sharkia ... ..	—	—	·371	·2	—	—	—	—	·817	1·7
Aswan ... ..	—	—	—	—	—	—	—	—	1·0	·7
Assiut ... ..	—	—	—	—	·071	—	—	—	1·5	1·1
Beni Suef ... ..	—	—	·318	—	—	—	—	—	1·3	·5
Fayoum ... ..	—	—	—	—	—	—	—	—	1·0	1·1
Gerga ... ..	—	—	—	—	—	—	—	—	·453	1·5
Giza ... ..	—	—	·341	·8	—	·1	—	—	9·4	8·0
Minia ... ..	—	—	—	—	·093	—	—	—	1·1	·7
Qena ... ..	—	—	—	·09	·088	—	—	—	1·1	1·1
TOTAL ... ..	—	—	·363	·3	·02	·005	—	—	4·1	4·1



RATES PER 100,000 POPULATION 1948—1949

Scarlet fever		C.S.M.		Diphtheria		Measles		Pulmonary T.B.		Acute Pnuemonia		Chicken Pox		Puerperal fever	
48	49	48	49	48	49	48	49	48	49	48	49	48	49	48	49
—	—	·328	1·4	8·8	6·9	58·6	35·4	69·4	66·8	81·2	79·7	—	·05	1·5	·87
—	—	·734	·4	5·2	5·4	4·9	52·4	65·8	62·7	90·1	173·4	—	·3	·944	·8
—	—	—	—	—	2·6	3·5	12·2	3·8	38·3	7·4	178·6	—	—	·268	—
—	—	4·8	1·6	5·0	10·0	101·5	8·5	70·0	69·3	35·8	23·8	—	—	1·1	—
—	—	—	—	·718	5·2	—	1·7	3·6	38·3	18·8	7·0	—	—	—	—
—	—	—	—	18·7	16·5	1·8	2·6	18·7	26·9	22·3	26·9	—	—	—	—
—	—	1·2	—	—	1·1	33·5	18·6	1·2	5·6	2·3	2·2	—	—	—	·6
—	—	—	—	1·7	1·1	1·8	6·6	10·9	12·6	2·0	3·4	—	—	·313	·3
—	—	·275	—	2·2	1·3	10·0	7·1	11·9	10·2	2·8	2·9	—	—	·137	·3
—	—	·125	·16	2·1	3·3	1·4	3·1	8·2	8·3	4·1	10·1	—	—	·125	·16
—	·08	—	—	·083	3·1	4·6	4·6	2·6	8·0	6·4	4·4	—	·08	·417	·2
—	—	—	—	4·6	3·7	8·0	1·9	9·8	13·2	8·4	8·5	14·0	—	·280	·14
—	—	·223	·2	2·0	1·6	9·4	5·6	7·1	7·1	6·1	7·6	—	—	·223	·15
—	—	—	—	5·4	5·2	·336	1·6	12·8	13·8	11·4	19·0	—	—	·716	·4
—	—	—	—	1·9	1·7	6·7	15·8	5·1	8·9	2·4	5·3	—	—	·426	·6
—	—	—	·2	1·7	1·2	1·9	6·1	5·9	10·6	14·0	26·6	—	—	·636	·4
—	—	—	·14	1·0	1·4	3·0	4·1	1·2	14·3	3·5	2·0	—	—	·435	·4
—	—	—	—	1·4	·9	·603	18·4	3·7	3·3	2·5	3·6	—	—	·377	·07
—	—	·114	1·2	5·8	4·1	16·1	14·2	23·8	17·7	13·8	12·2	—	—	·568	·03
—	—	—	—	1·2	2·7	3·9	6·2	8·1	7·4	2·4	4·0	—	·09	·186	·2
—	—	—	—	2·0	1·4	7·7	8·2	7·5	4·0	6·3	8·8	—	—	·265	·3
—	·005	·189	3	3·4	3·0	12·3	13 0	19·0	19·1	8·2	24·6	·005	·03	·481	·4

TABLE NO. 17.—INFECTIOUS DISEASES DEATH

Localities	Dysentery		Influenza		Malaria New		Malaria Recurrent		Anthrax	
	48	49	48	49	48	49	48	49	48	49
Cairo ... ..	4·8	3·0	·094	·06	·188	·1	—	—	—	·06
Alexandria ... ..	5·3	4·9	·105	—	·105	·1	—	—	—	—
Ismailia ... ..	·357	3·5	—	·9	—	·9	—	—	—	—
Port Said ... ..	2·7	2·1	·543	·5	—	·5	—	—	—	—
Damietta ... ..	—	1·7	1·8	—	1·8	—	—	—	—	—
Suez... ..	·891	—	·891	—	—	·9	—	—	—	—
Frontier Districts... ..	—	—	1·2	—	—	—	—	—	—	—
Behera ... ..	·546	·8	·313	1·0	—	—	—	—	—	—
Dakahlia ... ..	·344	·4	—	·4	—	·07	—	—	—	—
Gharbia ... ..	·292	·8	·125	·2	·125	·1	—	—	—	—
Menoufia... ..	·334	·3	·083	·4	—	—	—	—	—	—
Kaliubia ... ..	·841	·4	·421	·3	·140	·14	—	—	—	—
Sharkia ... ..	·420	·7	·074	—	·297	·07	—	—	—	—
Aswan ... ..	·336	1·3	—	2·6	·672	—	—	—	—	—
Assiut ... ..	1·1	·7	·213	·1	—	—	—	—	—	—
Bien Suef ... ..	·159	·2	·155	2·0	·159	—	—	—	—	—
Fayoum ... ..	·290	·14	—	—	·145	—	—	—	—	—
Gerga ... ..	·075	·4	·075	—	·75	—	—	—	—	—
Giza ... ..	·455	·03	·455	·03	—	·03	—	—	—	—
Minia ... ..	·186	·5	·279	·7	—	—	—	—	—	—
Qena ... ..	·265	·3	·53	·4	·265	·09	—	—	—	—
TOTAL ... ..	1·2	1·0	·194	·4	·118	·09	—	—	—	·005

RATES PER 100,000 POPULATION 1948—1949 (contd.)

Whooping C.		Parotitis		Undulant fever		Leprosy		Tetanus		Acute Poliomyelitis		Erysipelas		TOTAL	
48	49	48	49	48	49	48	49	48	49	48	49	48	49	48	49
·376	·05	·094	·9	·047	—	·376	·3	6.2	1.1	·047	—	·094	·8	—	214.7
·420	·7	·105	—	—	—	—	—	2.5	·2	·21	·2	·734	1.0	—	318.4
—	·9	·894	—	—	—	—	—	2.7	2.6	·894	—	·894	—	—	250.0
—	—	—	—	—	—	—	—	1.6	1.6	—	1.0	2.2	1.0	—	133.9
—	—	—	—	—	—	—	—	1.8	5.2	3.6	—	—	1.7	—	662.0
—	—	—	—	—	—	—	—	·891	·9	·891	—	·891	—	—	93.8
1.7	—	—	—	—	—	—	—	—	—	—	—	·578	·6	—	30.5
·161	·3	—	—	—	—	·234	·08	2.5	2.4	—	—	·391	·2	—	32.1
·275	·7	—	·1	—	—	·275	·1	·962	1.1	—	—	·412	·07	—	27.2
—	·1	·041	—	—	—	·125	·04	1.7	1.8	·125	·04	·125	·2	—	30.3
·083	—	—	·08	·083	—	·667	·7	2.2	1.1	—	·08	·334	·4	—	25.8
—	—	—	—	—	·14	·421	·8	2.0	1.4	—	—	·842	·14	—	33.7
·148	·3	—	—	—	—	·42	—	1.8	1.1	—	—	·148	·15	—	26.5
·336	—	—	—	—	—	·336	·4	1.0	—	—	—	—	—	—	45.2
·142	·1	—	—	—	—	·802	·2	1.3	·1	—	—	·497	·2	—	36.1
—	·8	—	—	—	—	·159	·2	1.4	·4	—	—	—	—	—	49.1
—	1.0	·145	—	—	—	·145	·4	1.7	·4	—	—	·435	·14	—	56.8
—	—	—	07	—	—	·377	·01	·302	·1	—	—	·075	·07	—	29.5
—	·06	—	—	·227	·03	·455	1.9	2.5	1.8	—	·1	·114	·2	—	65.3
—	—	—	—	·186	—	·279	·8	2.0	1.5	—	—	·186	·4	—	25.2
·088	—	·171	—	—	—	·265	·6	·353	·6	—	·09	·088	—	—	25.6
·138	·4	·041	·04	·031	·02	·311	·3	1.61	1.4	·141	·05	·383	·3	62.1	68.8



# TYPHUS

TABLE NO. 18. — QUARTERLY CASES AND DEATHS IN EGYPT AND CASE RATES  
PER 100,000 POPULATION 1949

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rates per 100,000 Pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	4	2	8	—	1	—	1	—	14	2	0·6
Alexandria ... ..	4	3	5	2	1	—	1	—	11	5	1·1
Ismailia ... ..	—	—	—	—	—	—	—	—	—	—	—
Port-Said ... ..	—	—	—	—	—	—	—	—	—	—	—
Damietta ... ..	—	—	—	—	—	—	—	—	—	—	—
Suez... ..	2	—	—	—	—	—	—	—	2	—	1·7
Frontier Districts...	—	—	—	—	—	—	—	—	—	—	—
<b>TOTAL Governorates</b>	<b>10</b>	<b>5</b>	<b>13</b>	<b>2</b>	<b>2</b>	<b>—</b>	<b>2</b>	<b>—</b>	<b>27</b>	<b>7</b>	<b>0·7</b>
Behera ... ..	10	7	3	2	—	—	—	—	13	9	1·0
Dakahlia ... ..	40	7	35	13	—	—	—	—	75	20	5·0
Gharbia ... ..	—	—	6	1	1	—	—	—	7	1	·28
Menoufia ... ..	12	3	1	1	—	—	3	1	16	5	1·3
Kaliubia ... ..	—	—	—	—	—	—	—	—	—	—	—
Sharkia ... ..	3	1	—	—	—	2	—	—	3	3	0·22
<b>TOTAL Lower Egypt</b>	<b>65</b>	<b>18</b>	<b>45</b>	<b>17</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>1</b>	<b>114</b>	<b>38</b>	<b>1·3</b>
Aswan ... ..	—	—	—	—	—	—	—	—	—	—	—
Assiut ... ..	—	—	—	—	—	—	—	—	—	—	—
Beni Suef ... ..	—	—	—	—	—	—	—	—	—	—	—
Fayoum ... ..	—	—	—	—	—	—	—	—	—	—	—
Gerga ... ..	1	—	—	—	—	—	—	—	1	—	·07
Giza... ..	25	2	11	5	—	—	—	—	36	7	4·0
Minia ... ..	—	—	—	—	—	—	—	—	—	—	—
Qena ... ..	2	—	—	1	—	—	—	—	2	1	17
<b>TOTAL Upper Egypt</b>	<b>28</b>	<b>2</b>	<b>11</b>	<b>6</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>39</b>	<b>8</b>	<b>2·4</b>
<b>GRAND TOTAL...</b>	<b>103</b>	<b>25</b>	<b>69</b>	<b>24</b>	<b>3</b>	<b>3</b>	<b>5</b>	<b>1</b>	<b>180</b>	<b>53</b>	<b>0·9</b>

# TYPHOID FEVER

TABLE NO. 19.—QUARTERLY CASES AND DEATHS IN EGYPT AND CASE RATES PER 100,000 POPULATION 1949.

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate Per 100000 Pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	243	27	759	67	1869	180	1220	84	4,091	358	187·9
Alexandria ... ..	81	16	192	25	261	35	209	20	743	96	75·9
Ismailia ... ..	—	—	8	3	21	3	4	—	33	6	28·7
Port Said ... ..	50	2	151	8	306	7	164	6	671	23	355·0
Damietta ... ..	2	—	2	1	11	2	8	—	23	3	40·1
Suez... ..	14	1	22	3	62	13	34	5	132	22	114·7
Frontier Districts	7	—	4	—	15	3	10	—	36	3	20·3
<b>TOTAL Governorates</b>	<b>390</b>	<b>46</b>	<b>1134</b>	<b>107</b>	<b>2530</b>	<b>240</b>	<b>1639</b>	<b>115</b>	<b>5,693</b>	<b>508</b>	<b>15·7</b>
Behera ... ..	35	9	40	10	58	10	40	7	173	36	13·2
Dakahlia ... ..	9	1	24	6	35	5	35	4	103	16	6·9
Gharbia ... ..	10	3	40	9	93	26	63	7	206	45	7·4
Menoufia ... ..	9	4	17	6	23	4	28	6	77	20	6·3
Kaliubia ... ..	10	2	34	2	51	12	32	5	127	21	17·5
Sharkia ... ..	6	2	23	5	35	9	29	7	93	23	6·9
<b>TOTAL Lower Egypt</b>	<b>79</b>	<b>21</b>	<b>178</b>	<b>38</b>	<b>295</b>	<b>66</b>	<b>227</b>	<b>36</b>	<b>779</b>	<b>161</b>	<b>9·1</b>
Aswan ... ..	—	—	3	—	2	2	1	—	6	2	2·0
Assiut ... ..	10	8	9	2	32	3	26	3	77	16	5·4
Beni Suef ... ..	3	—	4	2	6	1	2	—	15	3	2·3
Fayoum ... ..	10	3	18	4	30	1	13	—	71	8	10·1
Gerga ... ..	6	1	13	6	23	8	19	5	61	20	4·5
Giza ... ..	38	2	57	14	108	41	81	15	284	72	31·7
Minia ... ..	5	1	7	1	28	3	16	3	56	8	5·1
Qena ... ..	6	4	7	3	8	4	11	2	32	13	2·8
<b>TOTAL Upper Egypt</b>	<b>78</b>	<b>19</b>	<b>118</b>	<b>32</b>	<b>237</b>	<b>63</b>	<b>169</b>	<b>28</b>	<b>602</b>	<b>142</b>	<b>8·0</b>
<b>GRAND TOTAL ...</b>	<b>554</b>	<b>86</b>	<b>1434</b>	<b>177</b>	<b>3077</b>	<b>372</b>	<b>2045</b>	<b>179</b>	<b>7,110</b>	<b>814</b>	<b>35·6</b>

# CEREBRO SPINAL FEVER

TABLE NO. 20 — QUARTERLY CASES AND DEATHS IN EGYPT AND CASE RATES  
PER 100,000 POPULATION, 1949

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	24	11	43	5	24	7	42	7	133	30	6.1
Alexandria ... ..	1	—	2	2	2	1	4	1	9	4	0.09
Ismailia ... ..	—	—	—	—	—	—	—	—	—	—	—
Port Said ... ..	7	1	21	1	2	—	1	1	31	3	16.4
Damietta ... ..	—	—	—	—	—	—	—	—	—	—	—
Suez ... ..	—	—	1	—	—	—	—	—	1	—	0.8
Frontier Districts	—	—	—	—	—	—	—	—	—	—	—
<b>TOTAL Governorates</b>	<b>32</b>	<b>12</b>	<b>57</b>	<b>8</b>	<b>28</b>	<b>8</b>	<b>47</b>	<b>9</b>	<b>174</b>	<b>37</b>	<b>4.8</b>
Behera ... ..	—	—	—	—	—	—	—	—	—	—	—
Dakahlia ... ..	—	—	2	—	—	—	—	—	2	—	0.13
Gharbia ... ..	1	—	2	—	3	2	4	2	10	4	0.4
Menoufia ... ..	—	—	—	—	—	—	1	—	1	—	0.08
Kaliubia ... ..	—	—	—	—	—	—	—	—	—	—	—
Sharkia ... ..	1	1	5	1	1	1	—	—	7	3	.51
<b>TOTAL Lower Egypt</b>	<b>2</b>	<b>1</b>	<b>9</b>	<b>1</b>	<b>4</b>	<b>3</b>	<b>5</b>	<b>2</b>	<b>20</b>	<b>7</b>	<b>0.2</b>
Aswan ... ..	—	—	—	—	—	—	—	—	—	—	—
Assiut ... ..	—	—	1	—	—	—	2	—	3	—	0.21
Beni Suef ... ..	—	—	—	—	—	1	—	—	—	1	—
Fayoum ... ..	—	1	—	—	—	—	—	—	—	1	—
Gerga ... ..	—	—	—	—	—	—	—	—	—	—	—
Giza ... ..	—	1	5	2	1	4	—	4	6	11	6.7
Minia ... ..	—	—	1	—	—	—	—	—	1	—	0.09
Qena ... ..	1	—	—	—	—	—	—	—	1	—	0.08
<b>TOTAL Upper Egypt</b>	<b>1</b>	<b>1</b>	<b>7</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>4</b>	<b>11</b>	<b>13</b>	<b>0.1</b>
<b>GRAND TOTAL ...</b>	<b>35</b>	<b>15</b>	<b>83</b>	<b>11</b>	<b>33</b>	<b>16</b>	<b>54</b>	<b>15</b>	<b>205</b>	<b>57</b>	<b>1.0</b>



# DIPHTHERIA

TABLE NO. 21.—QUARTERLY CASES AND DEATHS IN EGYPT AND CASE-RATES  
PER 100,000 OF POPULATION, 1949

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	247	50	180	25	207	41	175	35	809	151	37.1
Alexandria ... ..	23	12	36	5	43	12	49	24	191	53	19.5
Ismailia ... ..	—	—	3	1	3	2	2	—	8	3	7.0
Port Said ... ..	21	5	19	3	18	6	25	5	83	19	44.4
Damietta ... ..	8	—	—	1	—	—	3	2	11	3	19.2
Suez ... ..	6	2	17	4	20	6	19	7	62	19	53.9
Frontier Districts ...	—	—	1	1	1	—	4	1	6	2	3.4
<b>TOTAL Governorates</b>	<b>315</b>	<b>69</b>	<b>255</b>	<b>39</b>	<b>291</b>	<b>67</b>	<b>303</b>	<b>73</b>	<b>1,164</b>	<b>248</b>	<b>32.0</b>
Behera ... ..	3	4	3	2	7	6	3	2	16	14	1.2
Dakahlia ... ..	5	2	6	5	17	7	21	5	49	19	3.3
Gharbia... ..	7	7	23	8	33	27	67	38	130	80	5.3
Menoufia ... ..	13	4	2	2	18	20	13	12	46	38	3.8
Kaliubia ... ..	5	9	9	3	8	6	21	9	43	27	5.9
Sharkia ... ..	5	5	20	2	9	11	10	4	44	22	3.2
<b>TOTAL Lower Egypt</b>	<b>38</b>	<b>31</b>	<b>63</b>	<b>22</b>	<b>92</b>	<b>77</b>	<b>135</b>	<b>70</b>	<b>328</b>	<b>200</b>	<b>3.8</b>
Aswan ... ..	4	3	3	5	6	4	4	4	17	16	5.6
Assiut ... ..	4	1	12	8	15	7	11	8	42	24	2.9
Beni Suef ... ..	—	2	—	—	1	1	3	5	4	8	0.6
Fayoum ... ..	1	—	3	—	2	3	7	7	13	10	1.9
Gerga ... ..	—	1	1	—	5	5	3	6	9	12	.67
Giza ... ..	15	7	6	4	16	17	18	9	55	37	6.1
Minia ... ..	1	1	6	6	11	11	11	12	29	30	2.6
Qena ... ..	2	3	7	6	3	3	4	4	16	16	1.4
<b>TOTAL Upper Egypt</b>	<b>27</b>	<b>18</b>	<b>38</b>	<b>29</b>	<b>59</b>	<b>51</b>	<b>61</b>	<b>55</b>	<b>185</b>	<b>153</b>	<b>2.4</b>
<b>GRAND TOTAL ...</b>	<b>380</b>	<b>118</b>	<b>357</b>	<b>91</b>	<b>443</b>	<b>195</b>	<b>503</b>	<b>119</b>	<b>1,683</b>	<b>603</b>	<b>8.4</b>

## MEASLES

TABLE NO. 22.—QUARTERLY CASES AND DEATHS IN EGYPT  
AND CASE RATES PER 100,000 POPULATION, 1949

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	646	157	997	484	160	127	12	3	1,815	771	83.3
Alexandria ... ..	2,088	217	1,295	247	216	48	32	1	3,631	531	37.1
Ismailia ... ..	—	—	—	11	1	3	—	—	1	14	.9
Port Said ... ..	10	1	37	6	24	9	—	—	71	16	37.6
Damietta ... ..	21	1	1	—	—	—	—	—	22	1	38.4
Suez ... ..	27	2	34	1	3	—	—	—	64	3	55.7
Frontier Districts	74	19	77	13	1	—	1	1	153	33	86.3
<b>TOTAL Governorates</b>	<b>2,792</b>	<b>378</b>	<b>2,364</b>	<b>749</b>	<b>404</b>	<b>187</b>	<b>44</b>	<b>4</b>	<b>5,604</b>	<b>1,318</b>	<b>154.2</b>
Behera ... ..	156	23	256	42	100	21	5	—	517	86	39.5
Dakahlia ... ..	234	42	266	43	33	20	1	—	534	105	35.9
Gharbia ... ..	96	9	302	65	111	2	2	—	511	76	20.8
Menoufia ... ..	251	19	201	22	24	15	14	—	490	56	40.2
Kaliubia ... ..	42	4	109	4	11	6	6	—	168	14	23.1
Sharkia ... ..	157	10	311	45	63	22	—	—	531	77	38.7
<b>TOTAL Lower Egypt</b>	<b>936</b>	<b>107</b>	<b>1,445</b>	<b>221</b>	<b>342</b>	<b>86</b>	<b>28</b>	<b>—</b>	<b>2,751</b>	<b>414</b>	<b>32.1</b>
Aswan ... ..	6	4	—	—	—	1	—	—	6	5	2.0
Assiut ... ..	121	52	374	129	141	43	3	3	639	227	44.6
Beni Suef ... ..	—	3	146	35	13	1	5	—	164	39	25.6
Fayoum ... ..	44	10	62	10	20	8	8	1	134	29	19.2
Gerga ... ..	43	7	274	214	61	15	18	12	396	248	29.4
Giza ... ..	203	26	506	94	84	7	10	1	803	128	89.6
Minia ... ..	120	7	292	38	77	20	7	3	497	68	45.2
Qena ... ..	61	28	45	50	1	1	58	15	165	94	14.3
<b>TOTAL Upper Egypt</b>	<b>598</b>	<b>137</b>	<b>1,699</b>	<b>570</b>	<b>397</b>	<b>96</b>	<b>109</b>	<b>35</b>	<b>2,803</b>	<b>838</b>	<b>37.0</b>
<b>GRAND TOTAL ...</b>	<b>4,400</b>	<b>641</b>	<b>5,585</b>	<b>1,553</b>	<b>1,144</b>	<b>369</b>	<b>182</b>	<b>40</b>	<b>11,311</b>	<b>2,603</b>	<b>56.7</b>

# INFLUENZA

TABLE No. 23.— QUARTERLY CASES AND DEATHS IN EGYPT AND CASE-RATES  
PER 100,000 POPULATION, 1949

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	302	9	685	5	767	—	385	—	2,139	14	98·2
Alexandria ... ..	202	—	438	—	481	—	336	—	1,457	—	148·9
Ismailia ... ..	3	1	6	—	10	—	2	—	21	—	18·3
Port Said ... ..	92	1	147	—	153	—	92	—	484	1	256·1
Damietta ... ..	7	—	13	—	14	—	6	—	40	—	7·0
Suez... ..	39	—	48	—	33	—	16	—	136	—	118·2
Frontier Districts ...	35	—	13	—	4	—	3	—	55	—	31·0
<b>TOTAL Governorates</b>	<b>645</b>	<b>11</b>	<b>1337</b>	<b>5</b>	<b>1458</b>	<b>—</b>	<b>837</b>	<b>—</b>	<b>4,277</b>	<b>16</b>	<b>117·7</b>
Behera ... ..	70	7	50	3	25	2	23	1	168	13	12·8
Dakahlia ... ..	25	1	72	3	61	1	29	1	187	6	12·6
Gharbia ... ..	84	3	111	4	116	—	67	—	378	7	15·4
Meroufia ... ..	24	1	70	3	27	—	18	1	139	5	11·4
Kaliubia ... ..	19	—	73	—	90	2	49	—	231	2	31·8
Sharkia ... ..	9	—	17	—	19	—	12	—	57	—	4·2
<b>TOTAL Lower Egypt</b>	<b>231</b>	<b>23</b>	<b>393</b>	<b>13</b>	<b>338</b>	<b>5</b>	<b>198</b>	<b>3</b>	<b>1160</b>	<b>33</b>	<b>13·5</b>
Aswan ... ..	15	4	14	3	11	—	15	1	55	8	18·0
Assiut .. ...	14	—	40	2	39	—	44	—	137	2	9·6
Beni Suef ... ..	10	4	19	4	25	5	6	—	60	13	9·3
Fayoum ... ..	1	—	4	—	12	—	6	—	23	—	3·3
Gerga ... ..	5	—	33	—	17	—	16	—	71	—	5·3
Giza... ..	43	1	95	1	60	1	46	—	244	3	27·2
Minia ... ..	19	1	36	3	54	3	29	1	138	8	12·6
Qena ... ..	25	—	3	—	39	2	16	1	110	3	9·6
<b>TOTAL Upper Egypt</b>	<b>132</b>	<b>10</b>	<b>271</b>	<b>13</b>	<b>257</b>	<b>11</b>	<b>178</b>	<b>3</b>	<b>838</b>	<b>37</b>	<b>11·1</b>
<b>GRAND TOTAL ...</b>	<b>1,043</b>	<b>33</b>	<b>2,014</b>	<b>31</b>	<b>2,057</b>	<b>16</b>	<b>1,216</b>	<b>6</b>	<b>6,330</b>	<b>86</b>	<b>31·7</b>



# WHOOPING COUGH

TABLE NO. 24.— QUARTERLY CASES AND DEATHS IN EGYPT AND CASE  
RATES PER 100,000 OF PUPULATION, 1949

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	146	7	136	10	29	2	17	—	328	19	15·1
Alexandria ... ..	36	1	34	2	47	2	32	2	149	7	15·2
Ismailia ... ..	—	—	—	1	—	—	—	—	—	1	—
Port-Said ... ..	1	—	2	1	3	2	3	—	9	3	4·8
Damietta ... ..	—	—	1	—	—	—	—	—	1	—	1·7
Suez... ..	—	—	2	—	—	—	1	—	3	—	2·6
Frontier Districts ...	—	—	10	—	—	—	—	—	10	—	5·6
<b>TOTAL Governorates</b>	<b>183</b>	<b>8</b>	<b>175</b>	<b>14</b>	<b>79</b>	<b>6</b>	<b>53</b>	<b>2</b>	<b>490</b>	<b>30</b>	<b>13·5</b>
Behera ... ..	3	1	3	2	3	1	10	—	10	4	0·8
Dakahlia ... ..	37	5	34	1	35	2	20	3	126	11	8·5
Gharbia ... ..	10	1	25	2	4	—	3	—	42	3	1·7
Menoufia ... ..	15	—	15	—	1	—	—	—	31	—	2·5
Kaliubia ... ..	—	—	6	—	2	—	1	—	9	—	1·0
Sharkia... ..	17	2	13	1	3	1	2	—	35	4	2·5
<b>TOTAL Lower Egypt</b>	<b>82</b>	<b>9</b>	<b>96</b>	<b>6</b>	<b>48</b>	<b>4</b>	<b>36</b>	<b>3</b>	<b>253</b>	<b>22</b>	<b>4·0</b>
Aswan ... ..	—	—	—	—	—	—	—	—	—	—	—
Assiut ... ..	2	—	14	—	1	—	3	2	20	2	1·4
Beni Suef ... ..	11	2	5	2	6	—	—	—	22	4	3·4
Fayoum ... ..	136	1	234	5	30	1	—	—	400	7	57·2
Gerga ... ..	1	—	25	—	3	—	3	—	32	—	2·4
Giza ... ..	17	5	34	2	13	1	35	1	99	9	11·0
Minia ... ..	18	—	36	—	1	—	—	—	55	—	5·0
Qena ... ..	1	—	—	—	1	—	2	—	4	—	0·03
<b>TOTAL Upper Egypt</b>	<b>186</b>	<b>8</b>	<b>348</b>	<b>9</b>	<b>55</b>	<b>2</b>	<b>43</b>	<b>3</b>	<b>632</b>	<b>22</b>	<b>8·3</b>
<b>GRAND TOTAL ...</b>	<b>451</b>	<b>25</b>	<b>629</b>	<b>29</b>	<b>182</b>	<b>12</b>	<b>123</b>	<b>8</b>	<b>1385</b>	<b>74</b>	<b>6·9</b>

# PAROTITIS (MUMPS)

TABLE No. 25.— QUARTERLY CASES AND DEATHS IN EGYPT AND CASE-RATES  
PER 100.000 POPULATION, 1949.

Localities	First Quarter		Second Quarter		Third Quarter		Fourth Quarter		TOTAL		Case rate per 100,000 pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	455	—	478	1	89	1	57	1	1,079	3	49·5
Alexandria ... ..	135	—	160	—	48	—	52	—	395	—	40·4
Ismailia ... ..	1	—	1	—	—	—	1	—	3	—	2·6
Port Said ... ..	1	—	6	—	12	—	27	—	46	—	24·3
Damietta ... ..	—	—	—	—	1	—	—	—	1	—	1·7
Suez... ..	17	—	6	—	1	—	—	—	24	—	20·9
Frontier Districts ...	—	—	9	—	10	—	225	—	244	—	137·7
<b>TOTAL Governorates</b>	<b>609</b>	<b>—</b>	<b>651</b>	<b>1</b>	<b>151</b>	<b>1</b>	<b>137</b>	<b>1</b>	<b>1,548</b>	<b>3</b>	<b>42·6</b>
Behera ... ..	9	—	11	—	3	—	1	—	24	—	1·8
Dakahlia ... ..	4	1	2	1	1	—	—	—	7	2	0·5
Gharbia ... ..	54	—	58	—	8	—	6	—	126	—	5·1
Menoufia ... ..	126	—	16	—	7	1	2	—	151	1	12·4
Kaliubia ... ..	101	—	79	—	15	—	5	—	200	—	27·5
Sharkia ... ..	12	—	15	—	3	—	4	—	34	—	2·5
<b>TOTAL Lower Egypt</b>	<b>306</b>	<b>1</b>	<b>181</b>	<b>1</b>	<b>37</b>	<b>1</b>	<b>18</b>	<b>—</b>	<b>542</b>	<b>3</b>	<b>6·3</b>
Aswan ... ..	27	—	5	—	—	—	1	—	33	—	10·8
Assiut ... ..	—	—	6	—	2	—	56	—	64	—	4·5
Beni Suef ... ..	—	—	—	—	1	—	—	—	1	—	0·2
Fayoum ... ..	1	—	5	—	12	—	3	—	21	—	3·0
Gerga ... ..	2	—	1	—	1	1	—	—	4	1	0·3
Giza... ..	81	—	44	—	6	—	2	—	133	—	14·8
Minia ... ..	1	—	3	—	1	—	2	—	7	—	0·64
Qena ... ..	25	—	4	—	1	—	1	—	31	—	2·7
<b>TOTAL Upper Egypt</b>	<b>137</b>	<b>—</b>	<b>68</b>	<b>—</b>	<b>24</b>	<b>1</b>	<b>65</b>	<b>—</b>	<b>294</b>	<b>1</b>	<b>3·9</b>
<b>GRAND TOTAL ...</b>	<b>1,052</b>	<b>1</b>	<b>909</b>	<b>2</b>	<b>222</b>	<b>3</b>	<b>445</b>	<b>1</b>	<b>2,628</b>	<b>7</b>	<b>13·2</b>

# DYSENTERY

TABLE NO. 26.—QUARTERLY CASES AND DEATHS  
IN EGYPT AND CASE-RATES PER 100,000 POPULATION, 1949.

Localities	First quarter		Second quarter		Third quarter		Fourth quarter		TOTAL		Case rate per 100,000 Pop.
	C	D	C	D	C	D	C	D	C	D	
Cairo ... ..	20	11	54	23	53	24	33	8	160	66	7.3
Alexandria ... ..	42	9	90	11	79	13	48	15	259	48	26.5
Ismailia ... ..	1	1	—	2	1	1	1	—	3	4	2.6
Port Said ... ..	3	1	7	1	2	1	5	1	17	4	9.0
Damietta ... ..	—	1	—	—	—	—	—	—	—	1	—
Suez... ..	13	—	21	—	20	—	4	—	58	—	50.4
Frontier Districts	13	—	56	—	5	—	6	—	80	—	45.2
<b>TOTAL Governorates</b>	<b>79</b>	<b>23</b>	<b>172</b>	<b>37</b>	<b>155</b>	<b>39</b>	<b>91</b>	<b>24</b>	<b>497</b>	<b>123</b>	<b>13.7</b>
Behera ... ..	1	3	2	3	4	3	4	1	11	10	0.8
Dakahlia ... ..	2	1	5	—	2	3	—	2	9	6	0.6
Gharbia ... ..	3	1	50	5	8	9	15	4	76	19	3.1
Menoufia ... ..	1	—	7	1	4	3	1	—	13	4	1.1
Kaliubia ... ..	1	1	5	1	—	1	2	—	8	3	1.1
Sharkia ... ..	5	2	23	1	6	6	—	1	34	10	2.5
<b>TOTAL Lower Egypt</b>	<b>13</b>	<b>8</b>	<b>92</b>	<b>11</b>	<b>24</b>	<b>25</b>	<b>22</b>	<b>8</b>	<b>151</b>	<b>52</b>	<b>1.8</b>
Aswan ... ..	7	1	1	—	2	1	4	2	14	4	4.6
Assiut ... ..	6	1	24	3	6	2	17	4	53	10	3.7
Beni Suef ... ..	2	—	4	—	1	—	4	1	11	1	1.7
Fayoum ... ..	1	1	21	—	10	—	13	—	45	1	6.4
Gerga ... ..	—	1	3	2	1	2	1	1	5	6	0.4
Giza ... ..	2	2	4	—	5	—	4	1	15	3	1.7
Minia ... ..	17	3	41	1	14	—	34	1	106	5	9.6
Qena ... ..	56	1	70	1	18	—	9	1	153	3	13.3
<b>TOTAL Upper Egypt</b>	<b>91</b>	<b>10</b>	<b>168</b>	<b>7</b>	<b>57</b>	<b>5</b>	<b>86</b>	<b>11</b>	<b>402</b>	<b>33</b>	<b>5.3</b>
<b>GRAND TOTAL...</b>	<b>196</b>	<b>41</b>	<b>488</b>	<b>55</b>	<b>241</b>	<b>69</b>	<b>205</b>	<b>43</b>	<b>1130</b>	<b>208</b>	<b>5.7</b>



### Chapter III — PERMITS

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(1) *Applications for New Permits :*

The number of applications received during the year for new permits for unhealthy, inconvenient and dangerous establishments of the first class was 1,825 as against 1,795 in 1948.

(2) *Establishments Licensed :*

The number of permits issued during the year to establishments of the first class was 1,018 as against 966 in the previous year.

(3) *Inward correspondence :*

The number of correspondence received by the department during the year was 21,399 as against 19,917 in 1948.

(4) *Outward correspondence :*

The number of correspondence sent out by the department during the year was 24,229 as against 21,785 in 1948.

The above shows that the activities of the Permits Department are on the increase as a result of the expansion of commerce and industry following World War II.

Chapter IV — Food Control

TABLE No. 27.—QUANTITIES OF FOODSTUFFS CONDEMNED AND NUMBER OF SAMPLES TAKEN AND THE RESULTS OF THEIR ANALYSIS DURING 1949

Name of Article	Foodstuffs Condemned					Samples taken				Percentage		
	Number	Bottles	Cans	Lbs.	Okes	No. of Samples	Genuine	Adulterated	Unft	Adulteration	Unfitness	
										%	%	
A.—FRESH FOODS												
Fruits and Vegetables	53,242	26	22	21,937	38,759	52	48	4	—	7.7	—	
Fish	319	—	15	2,021	5,428	—	—	—	—	—	—	
Meat	—	—	—	1,960	346	—	—	—	—	—	—	
Other Fresh Foods	2,666	—	—	245	525	—	—	—	—	—	—	
B.—COOKED FOODS	43,573	18	65	2,197	2,957	4	1	2	1	50	25	
C.—CANNED FOODS:												
Jams	549	310	323	15	252	48	46	—	2	—	4.16	
Milk and its products	47	60	480	35	54	34	30	—	4	—	7.11	
Fruits and Vegetables	461	169	39,912	962	2,744	107	81	1	25	93.0	23.36	
Meat	39	39	155,642	436	99	28	18	3	7	10.7	25	
Fish	1,456	—	236,409	598	193	117	84	4	29	3.42	2.4	
Other Canned Foods	15	21	90,292	1,333	533	70	60	—	10	—	14.3	
D.—OILS:												
Olive oil	—	—	—	—	35	114	112	1	1	9.0	9.0	
Sesame oil	—	—	—	15	12	379	370	3	6	8.0	1.6	
Linseed oil	—	—	—	255	12	186	151	18	17	97.0	91.0	
Lettuce oil	—	—	—	—	—	15	15	—	—	—	—	
Sufflower oil	—	—	—	—	15	12	9	2	1	16.6	8.3	
Cotton seed oil	—	—	—	85	86	199	194	3	2	1.5	1	
Other oils	—	—	—	21	—	76	63	10	3	13	4	





TABLE No. 28.—WORK DONE BY FOOD CONTROL SQUADS  
IN CUSTOMS HOUSES DURING 1949

1—Consignments examined and Results of samples taken therefrom

No. of Consignments examined	No. of Samples taken	Results of Analysis		
		Genuine	Unfit	Adulterated
26,308	1,121	1,007	78	36

2—Imported foodstuffs condemned or refused entry into the country.

Kind of Food	Kilogrammes	Cans or Bottles	Boxes, Sacks or Drums.
<i>(a) Fresh Foods :</i>			
Vegetables ... ..	5,948	2,972	2,901
Fruits ... ..	13,474	214	1,471
Meat ... ..	9,340	—	—
<i>(b) Canned Foods :</i>			
Jams and dried fruits ... ..	5,708	109,408	91
Milk ... ..	1,323	4,335	—
Meat ... ..	119,110	6,314	42
Fish ... ..	4,260	10,472	740
Vegetables and Sauce ... ..	1,210	325,078	177
<i>(c) Oils :</i>			
Olive oil ... ..	1,328	—	1
Cotton-seed oil ... ..	13	—	3
Butter and Masli ... ..	14,145	191	1
Fat and Margarine ... ..	618	721	—
Cocoa-nut oil... ..	11,447	—	—
Other oils ... ..	24,827	—	—
<i>(d) Other Foods :</i>			
Cheese ... ..	213	696	9
Flour ... ..	32,397	—	3
Flour products ... ..	2,532	13,918	—
Seeds and Corns .. ..	837,401	567	154
Nuts and Almonds ... ..	1,045	1,165	—
Spices ... ..	687	5,467	—
Sweets and Chocolate ... ..	7,154	2,717	274
Honey ... ..	129	—	1
Tea ... ..	123,158	679	321
Coffee ... ..	7,057	2	16
Cocoa ... ..	24	3,934	—
Alcoholic Liquors ... ..	—	143	99
Other Kinds ... ..	18,777	148,765	302
TOTAL ... ..	1,243,352	637,758	6,606

TABLE No. 29.— VARIOUS STATISTICS

P.V. drawn up Art. II of law No. (48) of 1941	No. of P.V. drawn up against Itinerant Vendors	No. of P.V. drawn up against Milk Vendors	Bandars to which itinerant ven- dors regulations were applied	Bandars to which milk Vendors regulations were applied	No. of itinerant vendors licensed during 1949	No. of milk vendors licensed during 1949
1,837	7,860	6,798	5	4	962	207

TABLE No. 30. — SHOWING NUMBER OF SAMPLES OF MILK TAKEN AND THE  
RESULTS OF THEIR ANALYSIS, 1949

No. of samples	Result of Analysis				
	Genuine	Adulterated by removal of fat	Adulterated by addition of water	Adulterated by both	Percentage
13,068	12,062	553	412	62	7.85%

Chapter V.—RURAL

TABLE No. 31.—ACTIVITIES

Province	Total number of Rural Health Centres	Preventive							
		Population Served By the health centres	Number of Births	Number of Deaths		Vaccination against Sm. pox	Diphth Inoculations		
				Children 0—5 years	Adults Above 5 years		1st Injection	2nd Injection	3rd Injection
Dakahlia ... ..	14	323,277	12,712	4,261	2,307	11,545	345	286	192
Gharbia ... ..	10	154,257	6,937	2,145	1,269	5,356	38	34	53
Behera... ..	13	239,376	11,016	2,624	2,683	10,000	864	562	361
Menoufia ... ..	30	545,911	21,525	5,067	4,390	17,473	672	557	510
Kaliubia ... ..	12	173,734	8,364	2,923	1,767	19,754	347	299	288
Sharkia ... ..	10	183,308	7,427	1,759	1,484	6,246	166	126	99
Giza ... ..	9	233,067	8,912	3,543	2,480	5,265	438	436	283
Fayoum ... ..	3	73,901	3,281	1,422	593	2,192	373	360	353
Beni Suef ... ..	5	95,105	2,659	733	745	2,421	160	143	37
Minia ... ..	11	226,979	9,043	2,253	1,748	8,905	853	399	269
Assiut ... ..	15	232,157	9,944	2,972	2,090	5,541	555	716	189
Gerga ... ..	9	197,640	5,882	1,443	1,572	4,632	26	26	25
Qena ... ..	10	281,030	7,625	1,635	2,871	6,291	153	87	77
Aswan ... ..	6	69,095	2,764	645	612	2,507	118	71	58
TOTAL ... ..	157	3,028,837	118,091	33,425	26,611	108,128	5,108	4,102	2,794



HEALTH

OF RURAL HEALTH CENTRES.

Services

Infectious Diseases Cases							Food Inspections			
Plague	Typhus	Relapsing fever	Typhoid	Cholera	Small pox	Other Diseases	Food condemned	Food samples examined		
								Fit	Adulterated	Decayed
—	5	103	95	—	—	230	1,355	711	16	9
—	1	—	14	—	4	370	310	249	57	6
—	1	—	19	—	1	504	362	316	23	16
—	2	—	5	—	—	248	1,385	706	29	9
—	2	—	14	—	2	200	599	355	13	5
—	8	—	24	—	2	132	608	108	4	18
—	2	—	26	—	5	793	492	174	36	1
—	1	—	2	—	—	164	192	114	4	—
—	—	—	2	—	—	36	597	325	17	—
69	63	83	9	—	12	49	385	406	16	3
—	—	—	1	—	—	45	321	139	5	5
—	—	—	5	—	—	37	166	113	6	1
—	2	—	28	—	18	125	65	66	1	—
—	—	—	—	—	—	15	84	51	1	1
69	87	186	244	—	44	2,948	6,921	3,833	228	74

TABLE NO. 31.—ACTIVITIES

Medical and Endemic								
Province	No. Outpatients		No. Ophthalmic Cases		Operations		Total In-patients	Endemic Examined
	New	Old	New	Old	In-patients	Out-patients		
Dakahlia ... ..	86,412	92,457	7,729	21,636	2,121	54	848	3,878
Gharbia ... ..	58,188	36,995	5,079	6,786	727	141	1,092	42,807
Behera... ..	69,570	83,076	8,323	19,340	1,131	80	648	38,607
Menoufia ... ..	115,362	133,476	11,340	23,365	2,990	230	893	61,584
Kaliubia ... ..	102,519	51,730	9,844	63,023	1,442	32	841	44,072
Sharkia ... ..	62,364	98,369	7,729	12,980	2,518	50	565	39,823
Gîza ... ..	90,638	29,564	9,777	23,690	1,457	51	773	34,081
Fayoum ... ..	23,469	9,500	1,973	3,196	308	9	171	8,516
Beni Suef ... ..	20,310	7,274	2,116	3,593	63	11	330	15,346
Minia ... ..	52,479	33,157	16,428	22,310	277	52	674	61,646
Assiut ... ..	56,733	43,870	7,290	7,130	878	—	52	17,257
Gerga ... ..	37,003	14,542	3,541	4,568	174	3	26	14,865
Qena ... ..	35,061	8,485	8,707	5,169	253	—	59	6,445
Aswan ... ..	26,011	9,588	6,454	6,648	36	—	—	5,483
TOTAL ...	836,119	652,083	106,330	223,434	14,375	713	6,972	384,510

OF RURAL HEALTH CENTRES (Contd.)

Diseases Services

Diseases												Pellagra cases
Schistosomiasis				Dysentery Cases				Intestinal parasites				
Positive	Started treatment	No. Injections	Completed treatment	Positive	Starte <sup>d</sup> treat.	injec-tions	Comp. treat	Positive	Carbon chlo-ride doses	Oil cheno-pod, doses	Comp. treat.	
27,417	21,906	433,019	15,717	28,588	2,108	15,770	11,652	147	130	798	128	647
20,305	11,106	97,431	4,813	20,181	2,171	7,866	3,414	142	86	529	81	397
21,373	19,935	123,021	9,914	17,648	1,460	11,465	9,808	359	326	2,092	306	330
44,566	24,164	177,710	10,959	41,192	3,553	25,278	11,216	297	197	1,052	175	571
25,834	17,793	193,281	3,564	33,209	785	26,704	7,535	147	113	722	101	723
17,861	12,500	77,701	4,414	20,449	715	10,525	4,351	433	335	1,714	202	108
23,057	14,974	155,869	4,825	2,055	6,300	5,508	2,735	34	32	171	25	97
5,102	4,687	35,750	4,388	755	515	155	1,043	76	71	426	68	—
8,483	6,772	49,224	3,356	1,110	2,177	162	717	30	25	138	22	102
15,752	12,966	110,813	3,633	6,622	2,819	1,007	737	148	117	701	84	141
8,430	6,233	47,645	3,318	4,022	2,158	271	1,089	99	76	486	58	13
14,117	13,996	88,230	7,375	6,092	2,728	1,701	3,127	91	72	387	48	50
3,943	2,861	31,372	1,858	3,193	1,450	1,472	1,700	83	79	451	54	28
1,132	1,125	1,651	960	97	8	2	10	19	19	169	13	1
237,372	171,018	1,922,717	79,094	185,213	28,947	107,886	59,134	2,105	1,678	9,836	1,365	3,415



TABLE No. 31.— ACTIVITIES

Province	Maternity and					
	Pregnants		Number of children	Syphilis		
	New	Old		Blood Samples	Positive	No. Started treatment
Dakahlia ... ..	5,079	15,642	43,535	235	300	2,757
Gharbia ... ..	3,871	13,203	32,397	278	213	2,796
Behera ... ..	3,723	9,352	30,988	125	150	1,950
Menoufia ... ..	5,841	21,258	47,102	482	722	7,502
Kaliubia ... ..	4,737	13,518	28,475	171	383	2,282
Sharkia ... ..	2,411	11,750	40,017	192	225	2,290
Giza ... ..	4,430	18,894	54,947	266	387	4,727
Fayoum ... ..	954	1,527	4,139	59	51	536
Beni Suef ... ..	1,877	6,662	19,120	99	82	1,267
Minia ... ..	2,693	9,683	18,441	303	—	3,161
Assiut ... ..	1,731	3,072	5,769	319	538	2,142
Gerga ... ..	348	957	1,840	34	34	480
Qena ... ..	268	—	243	15	11	709
Aswan ... ..	92	378	1,424	17	34	193
TOTAL ... ..	38,055	125,896	328,437	2,495	3,130	32,792

OF RURAL HEALTH CENTRES (Contd).

Child Health							
Cases		Deliveries			Home Visits		
Arsenic Inj.	Bismuth Inj.	Home deliveries	Deliveries in Health Centres	Total	To pregnant's Prenatal	To post Natal	To Infants
1,437	5,082	657	25	6,703	16,279	34,836	17,052
1,018	4,202	848	20	4,026	5,624	15,791	7,037
563	2,859	4,732	16	4,748	5,935	21,892	8,962
2,573	6,221	567	12	7,155	21,220	43,967	44,467
1,637	4,849	213	35	3,689	8,482	25,853	11,384
489	2,804	384	15	2,625	4,809	15,570	7,371
4,670	5,034	4,569	46	4,975	12,310	20,201	9,558
—	1,059	166	2	1,009	1,169	5,417	1,395
327	1,904	191	9	1,639	3,416	8,632	5,201
780	2,767	367	7	2,751	6,517	14,636	9,104
—	1,607	1,213	2	2,635	3,182	15,232	2,801
—	400	120	—	979	555	5,981	657
284	42	48	—	268	536	268	268
90	91	7	—	202	155	1,330	80
13,868	38,921	14,082	189	43,404	90,189	229,606	125,337

## Chapter VI — QUARANTINE

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### A.—*Foreword* :

(1) The sanitary situation was satisfactory throughout the year 1949 in all ports and airfields. No cases of quarantinable diseases were reported, except for a few sporadic cases of Typhus reported in Cairo, Alexandria and Suez.

(2) Modifications were effected in the sections of the Quarantine Administration, as a result of the decision taken by the Committee of the World Health Organization at its meeting held in Cairo in February 1949, to incorporate the Pan Arab Regional Health Bureau with the World Health Organisation which assumed, amongst other activities, the exchange of sanitary information among the countries of the Eastern Mediterranean with effect from 1st July 1949.

(3) As regards the regulations in force, some amendments were introduced as summarised hereunder :

(a) The practice of taking samples for bacteriological examination from consignments of hides and skins, wool and other animal products and debris arriving unaccompanied by sanitary certificates from country of origin has been abolished as from April 1, 1949. Such consignments shall henceforth be re-exported. It will be recalled that this practice was resorted to in view of the country's great need for skins and wool during war years.

(b) Before January 1949, anti cholera inoculation certificates were considered valid for from 6 days to 6 months under Art. 32 of the International Sanitary Convention for Aerial Navigation concluded in 1933. According to the interpretation of the WHO Experts Committee on Epidemiology the validity period for cholera, as provided for in the International Sanitary Convention of 1944, will be from 7 days to 6 months. Circular No. 2 of January 1, 1949, has been issued to this effect.

(c) Before March 1949 and under reservation made by the Egyptian Government in connection with the amendment of the two Sanitary Conventions in 1944, certificates of anti yellow fever vaccination issued to persons staying in or entering endemic areas within 10 days from vaccination were considered valid for 15 days from date of vaccination. On the recommendation of the WHO Experts Committee a mean validity period of 12 days instead of 15 was accepted as a temporary measure until a final decision is reached by the Yellow Fever Research Committee. A circular letter to this effect was issued on March 2, 1949.

(d) At the request of the WHO, instructions have been given to quarantine units to disinfest all vessels and aircraft leaving Egyptian ports and airfields directly for Sardinia and to provide them with certificates of disinfestation.

(e) On November 12, 1949, Quarantine units were advised to accept anti cholera inoculation certificates issued on international forms without questioning the strength of the vaccine or the number of doses, until a decision is taken by the WHO Expert Committee on Epidemiology and Quarantine as to what constitutes an acceptable cholera vaccine for quarantine purposes. It was also decided to exempt children under one year of age from inoculation against cholera. Children over that age would receive a reduced dose proportionate with their bodyweight.



B.—MARITIME NAVIGATION

The sanitary situation in the ports was satisfactory throughout the year as it appears from the following table :

TABLE NO. 32— QUARANTINABLE DISEASES REPORTED IN THE PORTS  
DURING THE YEAR 1949

Port	Plague		Cholera		Small-pox		Typhus	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Alexandria ... ..	—	—	—	—	—	—	13	7
Port-Said ... ..	—	—	—	—	—	—	—	—
Suez... ..	—	—	—	—	—	—	2	—
Cairo ... ..	—	—	—	—	2	—	13	—
Luxor ... ..	—	—	—	—	—	—	2	—

*Other Ports:* El-Tor, Abu Zenima, Safagha, Hurghada, Shellal, Kantara, Ras Ghareb, Rosetta, Abu Kir, Mersa Matrouh, Sollum : NIL

INSPECTION OF VESSELS

As provided for in Article 48 of the Quarantine Regulations, all vessels arriving at Egyptian ports must, before communicating with the shore, be medically inspected.

Vessels arriving fom infected ports are subjected to a detailed medical inspection, (arraisonnement).

In the tables that follow are given :

(1) List of localities declared infected during the year by the Quarantine Authority (Table No. 33).

(2) List of localities declared clean during the year by the Quarantine Authority (Table No. 34).

(3) Number of vessels subjected to simple medical inspection (Table No. 35).

(4) Number of vessels subjected to detailed medical inspection (Table No. 35).

(5) Number of vessels arrived from the South via the Nile (Table No. 36).

(6) Cases of diseases found on vessels on their arrival at Egyptian ports (Table No. 37).

(7) Vaccinations carried out on board vessels in Egyptian Ports (Table No. 38).

(8) Passengers (Table No. 39).

TABLE NO. 33.—LOCALITIES DECLARED INFECTED DURING THE YEAR 1949

Date	Disease	Name of Country	Name of locality Considered as Infected	Arrivals by :
<b>1949</b>				
January 4 ...	Smallpox	Algeria ... ..	Whole Territory ... ..	All Routes.
	"	Colombia ... ..	" " ... ..	"
	"	Ecuador ... ..	" " ... ..	"
	"	Transjordan ...	" " ... ..	"
	"	Burma ... ..	" " ... ..	"
	"	Portugeese East Africa.	" " ... ..	"
	"	Iran ... ..	" " ... ..	"
	Typhus	Union of South Africa.	" " ... ..	"
	"	Iraq ... ..	" " ... ..	"
	"	Transjordan ...	" " ... ..	"
	"	Chile ... ..	" " ... ..	"
	"	Colombia ... ..	" " ... ..	"
	"	Ecuador ... ..	" " ... ..	"
	Plague	Ecuador ... ..	" " ... ..	"
	"	Indochina ... ..	" " ... ..	"
January 9 ...	Cholera	Siam ... ..	" " ... ..	"
	Plague	Union of South Africa.	Cape Province Hay Dis- trict.	"
January 13 ...	Plague	Burma ... ..	Whole Territory ... ..	"
	Smallpox	China ... ..	" " ... ..	"
	"	Lebanon ... ..	" " ... ..	"
	Typhus	Sierra Leone ...	" " ... ..	"
	"	Tripolitania ...	" " ... ..	"
January 23 ...	Plague	Ethiopia ... ..	" " ... ..	"
	"	Union of South Africa.	Kunuman District, Cape Province.	"
	Smallpox	Bahrain Island ...	Whole Territory ... ..	"
	"	Indonesia ... ..	Batavia ... ..	"
February 8 ...	Plague	Siam ... ..	Whole Territory ... ..	Air Sea.
March 2 ...	"	Union of South Africa.	Queenstown and Uitenhage Cape Province.	All Routes.
	"	" "	Perys District Orange Free State.	"
April 6 ...	Cholera	Burma ... ..	Bassein ... ..	Air, Sea.
April 7 ...	Plague	Union of South Africa.	Randfontein District Tran- sval Province.	All Routes.
April 10 ...	Smallpox	Belgian Congo ...	Stanley Ville District ...	"
May 24 ...	"	Gambia ... ..	Bathurst Port ... ..	"
	"	Indonesia ... ..	Sumatra Island (Taponolin District).	"
	"	" ... ..	Bandoeng Port ... ..	"
	"	" ... ..	Cheribon Port ... ..	"
	"	" ... ..	Pekalongon (Java) ...	"
July 13 ...	"	Ceylon ... ..	Central Province ... ..	"
	"	Afghanistan ...	Whole Territory ... ..	"
August 6 ...	Typhus	" ... ..	" " ... ..	Air Sez.
	Plague	South West Africa	" " ... ..	All Routes.
	"	Basutoland ...	" " ... ..	"
August 24 ...	"	Union of South Africa.	Glen Aden Hemelstraat, Gordonia District (Cape Province).	"
	"	U.S.A. ... ..	New Mexico State ... ..	Air Sea.
	"	Kenya ... ..	Kyambo Province ... ..	"
August 24 ...	Smallpox	Indonesia ... ..	Java Island (Semarang) ...	Air Sea.
Sept. 8 ...	Cholera	Burma ... ..	Irrawaddi District ... ..	"
	Plague	Kenya ... ..	Rift Valley District... ..	"
Sept. 19 ...	Plague	Union of South Africa.	Bothaville District Orange Free State.	All Routes.



TABLE NO. 33—LOCALITIES DECLARED INFECTED DURING THE YEAR 1949. (Contd).

Date	Disease	Name of Country	Name of locality considered as infected	Arrivals by :
<b>1949</b>				
Oct. 10	Plague	Indonesia ... ..	Jogjakarta (Java) ... ..	Air, Sea.
	"	Peru ... ..	Monsefu, Chiclayo Prov....	"
Oct. 13	Plague	Union of South Africa.	Vryburg, St. Marks District (Cape Province).	"
	Plague	" "	Zastrom, Vredfort Hopstad Senekal Districts (Orange Free State).	All Routes.
	Plague	" "	Hellbron Dist. ... ..	"
Nov. 6	"	" "	Talbagg Cape Province ...	"
	"	Peru ... ..	Trujillo, La Libertad Province..	Air ; Sea
	"	" ... ..	Chancay Dist., Lima Province.	"
Nov. 14	Smallpox	" ... ..	Whole Territory ... ..	"
Nov. 24	Plague	Indonesia ... ..	Cibolga Dist. (Sumatra Island).	"
Dec. 1	Plague	Brazil ... ..	Ceara States Pernambuco State.	"
Dec. 24	Plague	Hawaii ... ..	Haina Island ... ..	"
	"	Union of South Africa.	Blom Fontein District (Orange Free State).	"

TABLE NO. 34.—RESTRICTIONS WERE WITHDRAWN FROM THE FOLLOWING LOCALITIES

Date	Disease	Name of Country	Name of Locality Considered as Decontaminated	Arrivals by :
<b>1949</b>				
Jan. 23	Typhus	Tripolitania ... ..	Whole Territory ... ..	All Routes.
Feb. 3	Plague	Union of South Africa	Koppies District (Orange Free State).	"
Feb. 21	Typhus	Chile ... ..	Whole Territory ... ..	Air, Sea
March 29	Plague	Ethiopia ... ..	" " ... ..	"
April 10	Typhus	Iraq ... ..	" " ... ..	All Routes.
April 26	"	Union of South Africa	" " ... ..	"
May 24	Plague	" "	Randfontein District ...	"
June 11	Smallpox	Aden ... ..	Whole Territory ... ..	"
		Indonesia ... ..	Kondor Island ... ..	"
		Phillipines Island	Mindoro Island ... ..	"
Aug. 3	Smallpox	Ceylon ... ..	Central Province ... ..	"
Aug. 31	"	Gambia ... ..	Bathurst Port ... ..	"
	Cholera	Burma... ..	Bassein Port ... ..	"
Sept 19	Smallpox	Lebanon ... ..	Whole Territory ... ..	"
Sept. 26	Plague...	Indonesia ( Java Island).	Tegal District ... ..	"
		Kenya ... ..	Kyambu District ... ..	"
	Smallpox and Typhus	Hashemite Kingdom of the Jordan.	Whole Territory ... ..	"
Oct. 10	Plague	Burma ... ..	Rangoon ... ..	"
Oct. 10	Smallpox	China ... ..	Tientsin City ... ..	"
Nov. 1	"	Gibraltar ... ..	Whole Territory ... ..	"
		Italy ... ..	Naples ... ..	"
Nov. 24	Plague	Union of South Africa	Botaville Dist. (Orange Free State).	"
Dec. 5	"	" "	Tulbagg Dist. (Cape Province	"
Dec. 24	"	" "	Glen Aden, Uitenhage, Kuruman, St. Mark, Queenstown (Cape Prov.	"
Dec. 24	"	" "	Hemelstraat, Vryburg, Heilbron, Zastron, Koppies, Senekal (Orange Free State)	"



TABLE NO. 35— STATEMENT OF ALL SHIPS ARRIVED DURING THE YEAR 1949

Port	Cargo	Passenger vessels	Passenger and cargo	Sailing Vessels and Launches	Tankers	Various	TOTAL
SIMPLE MEDICAL INSPECTION							
Alexandria ... ..	598	105	—	51	65	9	828
Port Said ... ..	1,905	247	360	254	2254	236	5,256
Suez... ..	497	26	50	322	496	18	1,409
Tor ... ..	—	—	—	119	—	18	137
Kossier ... ..	21	—	—	106	—	—	130
Damietta ... ..	—	2	—	118	—	—	120
Rosetta ... ..	—	—	—	79	—	—	79
Hurghada ... ..	—	—	—	—	—	—	—
Safaga ... ..	16	—	—	28	—	—	44
Kantara ... ..	—	—	—	35	—	—	35
Sollum ... ..	—	—	—	12	—	—	12
Ismailia ... ..	—	—	—	—	—	—	—
Abu Zenima ... ..	2	—	—	93	—	—	95
Mersa Matruh ... ..	—	—	—	17	—	—	17
Râs Ghareb ... ..	99	—	—	3	215	—	317
Abukir ... ..	—	—	—	13	—	—	13
Borollos ... ..	—	—	—	1	—	—	1
Shellal ... ..	105	68	381	588	—	—	1,142
DETAILED MEDICAL INSPECTION							
Alexandria ... ..	891	260	—	99	27	—	1,277
Port-Said ... ..	2,038	302	560	87	3,084	225	6,296
Suez... ..	1,697	266	497	148	2,821	138	5,567
Tor ... ..	—	15(*)	—	37	—	32	84
Kossier ... ..	13	—	—	23	—	—	36
Damietta ... ..	—	—	—	15	—	—	15
Rosetta ... ..	—	—	—	—	—	—	—
Hurghada ... ..	—	—	—	—	—	—	—
Safaga ... ..	7	—	—	25	—	—	32
Kantara ... ..	—	—	—	—	—	—	—
Sollum ... ..	—	—	—	—	—	—	—
Ismailia ... ..	—	—	—	—	—	—	—
Abu Zenima ... ..	10	—	—	—	—	—	10
Mersa Matruh ... ..	—	—	—	—	—	—	—
Ras Ghareb ... ..	3	—	—	4	4	—	11

(\*) Pilgrim Ships.

TABLE NO. 36.—FLUVIAL NAVIGATION

(1) All the Nile Vessels arriving from the south are subjected to inspection by the Shellal Quarantine Authority :

Ships	Arrivals	Departures
Express Passenger Steamers	105	105
Ordinary Passenger Steamers ... ..	66	66
Special Passenger Steamers ... ..	2	2
Passenger and Cargo Steamers ... ..	381	354
Sailing Vessels ... ..	588	562
TOTAL ... ..	1,142	1,089

Total of Passengers  
Arrived 70,786

Total of Passengers  
Departed 70,400

(2) No cases of quarantinable or infectious disease were found either on arrival or after control at the place of destination of the passengers ; except one suspected case of smallpox isolated at Aswan Fever Hospital which was ultimately diagnosed as Chickenpox.

The Shellal Quarantine Office carried out the vaccination of 12,311 passengers against smallpox, and isolated 172 passengers coming from Yellow Fever Infected areas without being in possession of regular vaccination certificates against that disease.

TABLE NO. 37.—QUARANTINABLE AND INFECTIOUS DISEASES FOUND ON  
BOARD VESSELS

*Alexandria* ... .. No Case.

*Port Said* ... .. (a) Quarantinable Diseases : N I L.

(b) Infectious diseases : 46 cases on board 44 vessels including the  
the following diseases :

- 1 Typhoid Fever.
- 1 Paratyphoid.
- 1 Diphtheria.
- 1 Meningitis.
- 1 Chicken Pox.
- 2 Enteritis.
- 5 Measles.
- 7 Influenza.
- 5 Bronchitis.
- 1 Acute Bronchitis.
- 1 Chronic Bronchitis.
- 2 Suspected Fever.
- 4 Tuberculosis.
- 4 Pneumonia
- 5 Tuberculosis of Lungs.
- 1 Broncho-Pneumonia.
- 4 Malaria.

—  
**46**  
=

*Suez* ... .. (a) Quarantinable Diseases : N I L.

(b) Infectious Diseases : 875 cases on board 152 vessels, including  
the following diseases :

- 20 Influenza.
- 4 Whooping Cough.
- 191 Tuberculosis of Lungs.
- 194 Malaria.
- 18 Suspected Smallpox.
- 17 Chickenpox.
- 26 Measles.
- 13 Pleurisy.
- 5 Typhoid.
- 125 Dysentery.
- 4 Mumps.
- 210 Tuberculosis.
- 40 Pneumonia.
- 2 Leprosy.
- 3 Erysipelas.
- 1 Bronchitis.
- 1 Dengue.
- 1 Scarlet Fever.

—  
**875**  
=

*Kantara* ... .. One Influenza case (a passenger arriving by train from Palestine).



TABLE NO. 38.—VACCINATIONS CARRIED OUT ON BOARD VESSELS

Suez :

- 161 Passengers arriving on board vessels from Port Sudan, were vaccinated against Smallpox.
- 169 Passengers and Crews of S.S. "ORDU", were vaccinated against Smallpox. (Seven suspected cases of smallpox were isolated).
- 3 Passengers arriving on board vessels from Port Sudan were vaccinated against smallpox.
- 1,322 Passengers and Pilgrims on board S.S. "RODA" were vaccinated against smallpox. (Seven cases of suspected smallpox were isolated).
- 16 Passengers and cattle drovers arriving by sea from Port-Sudan were vaccinated against smallpox.
- 237 Passengers on board S.S. "SAKARA" (from Tor, after the Pilgrim Season) were vaccinated against smallpox.
- 59 Passengers arriving on board vessels from Port Sudan were vaccinated against smallpox.

TOTAL 1,967

TABLE NO. 39.—CONTROL OF PASSENGERS  
A. (LANDING)

Port	I and II Classes	III and IV Classes	TOTAL
Alexandria ... ..	11,994	9,076	21,070
Port-Said ... ..	14,099	35,631	4,973
Suez ... ..	2,156	6,595	8,751
Tor ... ..	28,511 (Pilgrims)	—	28,511
Kantara ... ..	3,017 (1)	1,122 (2)	4,139
Ras Ghareb ... ..	554	543	1,097
Damietta ... ..	6	—	6

B. (EMBARKING)

Alexandria ... ..	10,394	17,448	27,842
Port-Said ... ..	17,294	35,619	52,913
Suez ... ..	1,557	5,415	6,972
Tor ... ..	28,509 (Pilgrims)	—	28,509
Kantara ... ..	2,354 (3)	—	2,354
Ras Ghareb ... ..	383	490	873
Damietta ... ..	7	—	7

(1) Arriving by train.

(2) Arriving by camels.

(3) Leaving by train.

C.—Control of Aerial Navigation:

Reference was made in last year's report to the ever increasing air traffic in Egyptian aerodromes and the consequent growth in volume of passengers, tourists and businessmen travelling by this means.

For technical difficulties, the instructions given last year for all foreign aircraft to land in Cairo Airport could not be put into execution until the end of this year when the difficulties were overcome. In the course of December, all foreign airlines transferred their services from Almaza to Cairo Airport. Almaza aerodrome is now used by near east aircraft only.

The question of collecting quarantine dues from passengers arriving from abroad with no Egyptian currency represented a problem to quarantine authorities. It was suggested that air navigation companies collect these from passengers when booking their passages and refund to quarantine authorities in lump.

Some agents concurred to the arrangement; others did not.

TABLE No. 40. (A)—AIRCRAFT DEALT WITH DURING 1949

Name of Airport	Landing	Departing	Aircraft disin- sectised	Reconnaissance	Arraisonnement
<b>CAIRO :</b>					
Cairo ... ..	4,128	4,070	855	1,064	3,074
Almaza ... ..	3,995	3,964	443	1,275	2,720
Luxor ... ..	689	689	457	232	457
<b>ALEXANDRIA :</b>					
Fouad el Awal ... ..	1,295	1,306	399	509	786
MERSA MATRUH ... ..	13	12	—	13	—
PORT SAID ... ..	6	6	—	6	—
TOR ... ..	42	42	42	—	42
FAYED ... ..	1,996	1,614	354	677	1,319

TABLE No. 40. (B) —PASSENGERS LANDING FROM AIRCRAFT.

Name of Airport	Landing	Departing	Transit	Isolated	Remarks
Cairo ... ..	21,366	22,441	57,913	228	177 Irregular anti Cholera Certificates. 45 Irregular anti Yellow Fever Certificates. 3 For the arrival from Jeddah (Pilgrim Season)
Almaza ... ..	21,659	23,210	24,506	178	3 In the mpany of Pilgrims. 120 Irregular anti Cholera Certificates. 41 Irregular anti Yellow Fever Certificates. 15 Pilgrims (Pilgrim Season)
Luxor ... ..	112	400	8,606	13	2 In the accompany o pilgrims.
Fouad el Awal... ..	4,686	4,650	18,548	92	8 not in possession of : i- Yellow fever Certificates. 84 not in possession of anti-Cholera certificates.
Mersa Matruh ... ..	14	14	—	—	
Fayed ... ..	12,300	9,415	1,588	1	1 Incomplete Certificate of anti Cholera vaccination.

D.—Anti-Plague Work :

The following tables give details of rat catching in town and port areas carried out in Alexandria, Port-Said and Suez and their identification by the laboratories.

As regards the fumigation of vessels, under Art. 28 of the International Sanitary Convention of 1926, modified in 1938, masters of vessels are given the option to have their vessels fumigated either by the Quarantine Authority by the Clayton Gas process, or by the Near East Chemical and Fumigation Company, which carries out this operation by the Cyanide process under the supervision of the Quarantine Authority.

TABLE No. 41.—NUMBER OF RATS CAUGHT, DESTROYED AND EXAMINED IN THE PORTS

Number and species of rats caught		Alexandria	Port Said	Suez
R. Norvegicus ... ..	Town ... ..	6,542	6,206	1,068
	Port Area ... ..	213	484	240
R. Rattus ... ..	Town ... ..	7,546	39	35
	Port Area ... ..	1,410	317	162
Acomys Cahirinus ... ..	Town ... ..	1,034	—	586
	Port Area ... ..	106	—	242
TOTAL OF RATS CAUGHT ... ..		16,851	7,046	2,333
Mice ... ..	Town ... ..	—	761	276
	Port Area ... ..	—	3,882	330
Rats killed or found dead ... ..	Town ... ..	1,606	37	—
	Port Area ... ..	—	20	—
No plague infected rats were found ... ..		—	—	—
Rats found dead after fumigation on board vessels :				
(R. Rattus) ... ..		258	1	62
(R. Norvegicus)... ..		3	—	—
Mice ... ..		—	—	86



TABLE NO. 42—FLEAS FOUND ON RATS CAUGHT

Fleas found on :	Town		Port Area		TOTAL
	L.M.	X. Ch.	L.M.	X.Ch.	

A.—ALEXANDRIA

R. Norvegicus ... ..	130	126	11	24	291
R. Rattus ... ..	838	706	244	186	1,974
Acomys ... ..	—	—	—	—	—

B.—PORT-SAID

R. Norvegicus ... ..	103	402	42	135	677
R. Rattus ... ..	10	19	45	96	170
Acomys ... ..	—	—	—	—	—

C.—SUEZ

R. Norvegicus ... ..	3	385	4	20	412
R. Rattus ... ..	—	—	—	—	—
Acomys ... ..	—	—	—	—	—

L.M. = Leptopsylla Musculi.

X. Ch. = Xenopsylla Cheopis.

TABLE NO. 43.—VESSELS DERATISED

Port of	VESSELS			Process of deratization
	Steamers	Sailing	TOTAL	
Alexandria ... ..	8	3	11	Sulphur
Port-Saïd ... ..	3	1	4	
Suez ... ..	4	—	4	

Vessels deratised by the Imperial Chemical Industries, Ltd., under the supervision of the Quarantine Administration :

Alexandria ... ..	16	—	16	Cyanide
Port-Saïd ... ..	—	—	—	
Suez ... ..	4	—	4	

Certificates of Exemption from Deratization issued to :

Alexandria ... ..	60	11	71
Port-Saïd ... ..	99	43	141
Suez ... ..	73	91	164
Damietta ... ..	1	28	29

E.—*Pilgrimage to the Hedjaz for the year of the Hegira 1368 (August-November 1949, A.D.)*

A notice published by the Quarantine Administration in the Official Journal enforced, as from August 1, the usual sanitary provisions in respect of the control of pilgrims transiting Egyptian territory on their way to the Hedjaz. These provisions, which do not differ from those enforced in previous years, provide for the vaccination of unprotected or insufficiently protected pilgrims, their surveillance, etc.

Measures for the control of pilgrims returning home, as published in the Official Journal of August 22, 1949, were instituted after the completion of religious rites and remained in force until the closure of Tor Camp and termination of the pilgrim season on November 21, 1949.

OUTWARD JOURNEY

A. BY SEA

(a) *Egyptian Pilgrims :*

*Vaccinations and inoculations.*—As in previous years, all Egyptian pilgrims were subjected, before departure, to double anti-cholera and anti-typhoid inoculations and to anti-smallpox vaccination, the latter carried out under the same conditions as those enforced in 1945 (vide 1948 report).

*Transport of Pilgrims.*—The transport of Egyptian pilgrims to and from the Hedjaz was carried out by the Misr Shipping Co. which assigned for this purpose “Misr”, “Sudan”, and the S.S. “Providence” for one trip. The S.S. “Taif” and “Talodi” belonging to the Khedivial Mail Company carried foreign pilgrims.

All these vessels were inspected by the Quarantine Authorities and measured before being allowed to embark pilgrims and, having ascertained that the accommodation and installations were as laid down in the International Sanitary Convention of 1926, were issued with certificates of measurement. The S.S. “Misr” and “Sudan” were issued with certificates of measurement by the Alexandria Quarantine Authorities, and the S.S. “Amin” and “Zamalek” by the Suez Quarantine Authorities :

Name of Vessel	Date	Class I	Class II	Twindecks
S.S. Misr ... ..	20 August	54	117	1,235
S.S. Sudan ... ..	21 August	58	117	1,235
S.S. Amin ... ..	18 Sept.	—	—	123
S.S. Zamalek ... ..	16 Sept.	8	—	298

A total of 17, 732 Egyptian pilgrims left Suez for Jeddah during the period from 14th. August to 25th. September 1949 as against 20,106 during the previous season.

(b) *Foreign Pilgrims.*—Foreign pilgrims who transit Egyptian territory on their way to Hedjaz, generally consist of :

- (i) Those arriving at Port Said on board pilgrim ships bound for Jeddah in transit through the Canal.
- (ii) Pilgrims arriving by train from Palestine through Kantara to Suez, where they embark on pilgrim ships for Jeddah.
- (iii) Pilgrims arriving by train from Libya to Sollum, Alexandria and thence to Suez for embarkation for Jeddah.
- (iv) Pilgrims arriving at Port Said and Alexandria on ordinary vessels thence proceed to Suez by land and embark there for Jeddah.



(i) *Pilgrim Ships Transiting the Canal.*— 14 Pilgrim ships carrying 8,594 pilgrims arrived at Port Said on their way to Jeddah through the Canal (as against 5 vessels carrying 4,550 during the preceding pilgrim season). Details of these steamers are :

Table No. 44

Name of Steamer	Date of arrival	Port of Departure	Net Tonnage	No. of Pilgrims
Rawdah ... ..	6 September ...	Beirut Lattakia... ..	2,267	938
Spiros ... ..	12 „ ...	Beirut ... ..	1,084	859
Taif ... ..	14 „ ...	Beirut ... ..	770	634
Marios II ... ..	17 „ ...	Benghazi ... ..	648	171
Buntas ... ..	18 „ ...	Istambul ... ..	104	138
Nazer ... ..	19 „ ...	Ismir ... ..	1,004	576
Ordu ... ..	20 „ ...	Istambul ... ..	4,202	130*
Chelchuk ... ..	21 „ ...	Ismir ... ..	1,427	418
Rawdah ... ..	21 „ ...	Lattakia ... ..	2,267	1,197
Providence ... ..	22 „ ...	Marseilles ... ..	6,693	1,364
Sadik Zada Nazim ... ..	23 „ ...	Istambul ... ..	750	324
Talodi ... ..	23 „ ...	Beirut ... ..	784	646
Hak ... ..	23 „ ...	„ ... ..	511	303
Spiros ... ..	23 „ ...	Lattakia ... ..	1,084	884
TOTAL ... ..				8,582
(*) PILGRIMS EMBARKED AT PORT SAID ON S.S. "ORDU"				12
TOTAL ... ..				8,594

The nationalities of pilgrims on board are: Afghanis (18), Algerians (510), Saudis (24), Indians (15), Irakians (633), Iranians (478), Lebanese (501), Malayans (11), Moroccans (442), Palestinians (2), Senegalese (240), Syrians (1,738), Jordanians (1), Tripolitanians (171), Tunisians (173), Turks (3,616), French (11), American (1), Italian (1), Cypriots (8), Total 8,594.

All the vessels and pilgrims on board were inspected on arrival. The measurements and sanitary installations were verified and the following conditions found on board :

(1) The S.S. "Hak" arrived without the disinfecting chamber required under article 112 (f) of the International Sanitary Convention ;

(2) The S.S. "Spiros" (2 Trips), "Nazar" and "Buntas" arrived without the condenser required by article 112 (e) of the convention.

(3) The S.S. "Spiros" was found on her second trip with a wooden kiosk set up on the deck, thus contravening Art. 100 of the Convention which provides that pilgrims should be accommodated in the between decks.

(4) The S.S. "Marios II" arrived from Benghazi without a certificate of measurement and was measured by the Port Said Quarantine Authorities and issued with one authorizing her to embark 228 pilgrims.

No pilgrims were transported through Kantara this year.

Pilgrims arriving through the Western Frontier by land routes

(\*) All foreign pilgrims were found duly immunised except 50 Turkish pilgrims arriving at Por Said by S.S. "Taif" who were vaccinated against cholera and 31 of them against small pox by quarantine authorities.

A total of 20 Tripolitanian pilgrims arrived in Egypt through the Western border in transit through Egyptian territory. The pilgrims were examined on their arrival and found immunised against cholera, smallpox and typhoid.

### B. BY AIR

During the period from 14th. August to 28th. September, 78 aircraft carrying 1,764 pilgrims left Cairo aerodromes for the Hedjaz. The nationalities of these pilgrims are as follows :

Egyptians 775, Turks 650, Indians 88, Pakistanis 69, Palestinians 45, Morroccans 19, French 19, Tunisians 16, Sudanese 16, Syrians 6, Indonesians 6, Afghanis 5, Chinese 12, Irakians 11, British 9, Lebanese 6, Iranians 4, Hedjazians 3, Algerian 1, Malayan 1, Jordanian 1, South African 1, Canadian 1. Total 1,764 pilgrims.

### *Departure of Pilgrims from Suez.*

A total of 18,178 pilgrims left Suez for Jeddah on board pilgrim ships during the period from 14th. August to 25th. September as compared with 26,519 pilgrims for the last pilgrim season.

TABLE NO. 45.—DETAILS OF THE STEAMERS

Name of Steamer	Net Tonnage	Date of departure	Number of Pilgrims		
			Egyptians	Foreigners	TOTAL
		1949			
Taid ... ..	770	14 August ...	—	18	18
Talodi ... ..	770	21 August ...	—	7	7
Misr (1) ... ..	5,051	26 August ...	1,269	—	1,269
Sudan (1) ... ..	5,029	28 August ...	1,255	—	1,255
Zamalek ... ..	929	29 August ...	—	23	23
Misr (2) ... ..	5,051	31 August ...	1,351	—	1,351
Sudan (2) ... ..	5,029	2 September ...	1,377	—	1,377
Misr (3) ... ..	5,051	5 September ...	1,375	—	1,375
Sudan (3) ... ..	5,029	7 September ...	1,396	—	1,396
Misr (4) ... ..	5,051	10 September...	1,385	—	1,385
Talodi (2) ... ..	770	10 September	—	24	24
Sudan (4) ... ..	5,029	12 September...	1,390	—	1,390
Misr (5) ... ..	5,051	15 September	1,381	—	1,381
Zamalek ... ..	929	16 September	48	226	274
Sudau (5) ... ..	5,029	17 September	1,361	—	1,361
Amin ... ..	334	19 September	1	124	125
Misr (6) ... ..	5,051	20 September	1,406	—	1,406
Sudan (6) ... ..	5,029	22 September	1,405	5	1,410
Saqqarah ... ..	1,813	24 September	—	18	18
Misr (7) ... ..	5,051	25 September	1,332	1	1,333
TOTAL ... ..			17,732	446	18,178



The nationalities of the 446 pilgrims are as follows :

Afghani	...	...	...	...	...	...	...	...	...	...	1
Saudis	...	...	...	...	...	...	...	...	...	...	26
Irakians	...	...	...	...	...	...	...	...	...	...	1
Nigerians	...	...	...	...	...	...	...	...	...	...	35
Senegalese	...	...	...	...	...	...	...	...	...	...	2
Jordanians	...	...	...	...	...	...	...	...	...	...	2
Tunisians	...	...	...	...	...	...	...	...	...	...	11
Yemenites	...	...	...	...	...	...	...	...	...	...	66
Pakistanis	...	...	...	...	...	...	...	...	...	...	2
Algerians	...	...	...	...	...	...	...	...	...	...	7
Indians	...	...	...	...	...	...	...	...	...	...	12
Morroccans	...	...	...	...	...	...	...	...	...	...	227
Palestinians	...	...	...	...	...	...	...	...	...	...	8
Syrians	...	...	...	...	...	...	...	...	...	...	8
Tripolitani- ans	...	...	...	...	...	...	...	...	...	...	31
Turks	...	...	...	...	...	...	...	...	...	...	4
Somali	...	...	...	...	...	...	...	...	...	...	1
Cypriots	...	...	...	...	...	...	...	...	...	...	2
TOTAL											446

#### RETURN JOURNEY

Yom Arafat coincided this year with October 1, 1949. The first returning pilgrims arrived at Tor on 10th. October. These were 1,355 Egyptian pilgrims on board the S.S. "Misr" and 134 pilgrims borne by five Saudi aircraft. The last ship that left Tor lazaret was the S.S. "Taif" on 19th. November, the camp closing and the pilgrim season ending on 21st. November. The season thus lasted 43 days.

During that period, 30 steamers carrying 27,347 pilgrims and 42 aircraft carrying 1,165 pilgrims landed at Tor Lazaret, thus making a total of 28,512 (as against 26,535 for the last pilgrim season) consisting of 18,982 Egyptians and 9,530 foreigners.

All pilgrims arriving at Tor lazaret were kept under observation for the regulation period except 8,931 foreign pilgrims arriving by 15 pilgrim vessels and 19 by a French aircraft on their way to Tunisia who, after medical inspection, were authorised to transit the Canal in quarantine under Art. 142 of the Sanitary Convention. The regulation period of observation was 48 hours for arrivals by sea and 3 days for arrivals by air. Air borne pilgrims arriving before pilgrimage was declared clean were, however, subjected to five days quarantine.

*Sanitary Condition.*—In view of the absence of cholera and plague in the Hedjaz and the negative results of the individual stool examination of 1,355 pilgrims and 160 members of crew arriving by S.S. "Misr" and 1,508 by S.S. "Providence", and 134 pilgrims by air, and since the clinical examination of these pilgrims was satisfactory, it was decided—on 14th. October 1949—to apply at Tor the provisions of Article 142 of the International Sanitary Convention of 1926.



**TABLE NO. 46.—DETAILS OF STEAMERS WHICH LANDED PILGRIMS AT TOR STATION.**

Name of Vessel	Net Tonnage	Date of arrival	Date of Departure	Destination	Number of Pilgrims		
					Egypt.	Foreigners	TOTAL
Misr (1) ... ..	5,051	10 Oct.	13 Oct.	Suez	1,349	6	1,355
Providence ... ..	6,693	12 „	15 „	„	1,498	—	1,498
Sudan (1) ... ..	5,029	14 „	17 „	Jeddah	1,241	—	1,241
Providence (2) ... ..	6,693	16 „	18 „	Suez.	1,342	—	1,342
Sudan (2) ... ..	5,029	18 „	20 „	„	808	—	808
Misr (2) ... ..	5,051	22 „	24 „	„	1,414	4	1,418
Sudan (3) ... ..	5,029	25 „	27 „	„	1,444	—	1,444
Sudan (4) ... ..	5,029	29 „	31 „	„	1,403	2	1,405
Misr (3) ... ..	5,051	1 Nov.	3 Nov.	„	1,421	—	1,421
Talodi (1) ... ..	874	4 „	6 „	„	182	57	239
Misr (4) ... ..	5,051	5 „	7 „	„	1,408	2	1,410
Sudan (5) ... ..	5,028	8 „	10 „	„	1,378	1	1,379
Misr (5) ... ..	5,051	12 „	14 „	„	1,372	3	1,375
Sudan (6) ... ..	5,029	17 „	19 „	„	1,308	8	1 316
Misr (6) ... ..	5,051	19 „	21 „	„	653	112	765
TOTAL ...					18,221	195	18,416

TABLE NO. 47.—DETAILS OF STEAMERS WHICH TRANSITED THE CANAL

Name of Steamer	Net Tonnage	Date of Arrival	Date of Departure	Destination	Total of Foreigners
Ordu ... ..	4,902	15 Oct.	15 Oct.	Istanbul	64
Marios II ... ..	748	20 Oct.	20 Oct.	Benghazi	169
Providence ... ..	6,693	26 Oct.	26 Oct.	Tunis	1,484
Rawdah ... ..	2,267	27 Oct.	27 Oct.	Beirut	1,243
Spiros ... ..	1,000	27 Oct.	27 Oct.	Lattakia	863
Buntas ... ..	104	28 Oct.	28 Oct.	Istanbul	134
Nazar ... ..	1,004	28 Oct.	28 Oct.	„	577
Trabzon ... ..	4,233	29 Oct.	29 Oct.	Beirut	477
Seldjek ... ..	1,427	31 Oct.	31 Oct.	Istanbul	389
Sadek Zad Nazam ... ..	750	31 Oct.	31 Oct.	„	299
Halal ... ..	1,121	1 Nov.	1 Nov.	Beirut	363
Taif (1) ... ..	770	1 Nov.	1 Nov.	„	655
Rawdah (2) ... ..	2,267	8 Nov.	8 Nov.	„	1,183
Spiros (2) ... ..	1,000	10 Nov.	10 Nov.	Lattakia	925
Taif (2) ... ..	770	19 Nov.	19 Nov.	Beirut	106
TOTAL ... ..					8,931

TABLE NO. 48.—DETAILS OF AIRCRAFT WHICH LANDED PILGRIMS AT TOR STATION.

Name of Aircraft	Net Weight	Date of Arrival	Date of Departure	Destination	Number of Pilgrims		
					Egyptian	Foreign	TOTAL
	LBS.						
SAAA-D ... ..	40,000	10 Oct.	14 Oct.	Cairo	32	—	32
SAAA-B ... ..	40,000	10 Oct.	14 Oct.	"	32	1	33
SAT-I ... ..	8,000	10 Oct.	14 Oct.	"	20	—	20
SAAA-A ... ..	40,000	10 Oct.	14 Oct.	"	33	1	34
SAT-3 ... ..	8,000	10 Oct.	14 Oct.	"	15	—	15
SAT-2 ... ..	8,000	12 Oct.	15 Oct.	"	16	4	20
68967 ... ..	15,000	13 Oct.	16 Oct.	"	49	—	49
68964 ... ..	15,000	13 Oct.	13 Oct.	"	42	6	48
SAAA-B ... ..	40,000	13 Oct.	16 Oct.	"	19	15	34
SAAA-D ... ..	40,000	14 Oct.	17 Oct.	"	36	1	37
SAAA-B ... ..	40,000	14 Oct.	17 Oct.	"	35	1	36
SAT-7 ... ..	8,000	14 Oct.	17 Oct.	"	21	—	21
68964 ... ..	15,000	14 Oct.	17 Oct.	"	29	14	43
SAT-7 ... ..	8,000	16 Oct.	19 Oct.	"	21	—	21
SAAA-D ... ..	40,000	16 Oct.	19 Oct.	"	17	19	36
SAT-I ... ..	8,000	16 Oct.	19 Oct.	"	11	10	21
SAAA-E ... ..	40,000	16 Oct.	19 Oct.	"	32	4	36
SAT-I ... ..	8,000	17 Oct.	20 Oct.	"	19	2	21
SAT-3 ... ..	40,000	17 Oct.	20 Oct.	"	21	—	21
SAAA-E ... ..	40,000	17 Oct.	20 Oct.	"	36	2	38
SAAA-B ... ..	40,000	17 Oct.	20 Oct.	"	34	2	36
SAAA-D ... ..	40,000	17 Oct.	20 Oct.	"	8	19	27
SAAA-C ... ..	40,000	18 Oct.	21 Oct.	"	28	3	31
SAT-3 ... ..	8,000	19 Oct.	22 Oct.	"	9	10	19
SAAA-C ... ..	40,000	19 Oct.	22 Oct.	"	15	21	36
SAAA-E ... ..	40,000	19 Oct.	22 Oct.	"	13	20	33
F-BAXZ ... ..	8,000	20 Oct.	20 Oct.	Tunis	—	19	19
SAAA-E ... ..	40,000	22 Oct.	25 Oct.	Cairo	13	17	30
SAAA-B ... ..	40,000	22 Oct.	25 Oct.	"	28	8	36
SAAA-E ... ..	40,000	23 Oct.	26 Oct.	"	6	26	34
SAT-I ... ..	8,000	24 Oct.	27 Oct.	"	12	9	21
SAT-2 ... ..	8,000	25 Oct.	28 Oct.	"	4	17	21
SAAA-D ... ..	40,000	26 Oct.	29 Oct.	"	9	20	29
SAT-2 ... ..	8,000	28 Oct.	31 Oct.	"	4	18	22
SAT-I ... ..	8,000	28 Oct.	31 Oct.	"	7	12	19
SAAA-D ... ..	40,000	31 Oct.	3 Nov.	"	8	19	27
SAT-10 ... ..	8,000	1 Nov.	4 Nov.	"	6	10	16
SAT-2 ... ..	8,000	1 Nov.	4 Nov.	"	—	21	21
SAT-9 ... ..	8,000	2 Nov.	5 Nov.	"	4	3	7
SAT-9 ... ..	8,000	5 Nov.	8 Nov.	"	5	16	21
SAT-9 ... ..	8,000	7 Nov.	1 Nov.	"	7	20	27
SAT-7 ... ..	8,000	6 Nov.	12 Nov.	"	3	14	17
TOTAL ... ..					761	404	1,165



TABLE NO. 49.—COMPARATIVE STATEMENT OF PILGRIMS LANDED  
AT TOR DURING THE LAST THREE PILGRIM SEASONS

Nationalities	1947 A. D, 1366 Heg.	1948 A. D. 1367 Heg.	1949 A. D. 1368 Heg.
Egyptians ... ..	7,279	21,415	18,983
Afghanis ... ..	7	4	39
Algerians ... ..	687	609	517
Chinese ... ..	—	2	2
British ... ..	10	5	46
Cypriots ... ..	—	3	2
Cyrenaics ... ..	—	—	—
French ... ..	—	—	1
Ceylonese ... ..	—	21	—
Indians ... ..	18	187	171
Iranians ... ..	—	1,246	360
Irakians ... ..	9	521	503
Indonesians ... ..	—	12	19
Lebanese ... ..	367	167	473
Greeks ... ..	1	—	—
Moroccans ... ..	830	593	525
Palestinians ... ..	1,389	7	59
Pakistanis ... ..	—	—	20
Senegalese ... ..	—	241	300
Syrians ... ..	1,652	924	1,826
Transjordanians... ..	13	3	4
Tripolitaniens ... ..	—	75	198
Tunisians ... ..	263	270	213
Turks ... ..	4,358	58	4,066
Saudis... ..	81	128	157
South Africans ... ..	—	21	11
Miscellaneous ... ..	3	23	17
<b>TOTAL ... ..</b>	<b>16,967</b>	<b>26,535</b>	<b>28,512</b>

It will thus be observed that the number of returning Egyptian Pilgrims was 18,983 as against 18,507 pilgrims leaving during the pilgrim season. The difference represents pilgrims who had remained in the Hedjaz from previous pilgrim seasons and those who had left before the Pilgrim season for the Ragabia Visit (April-May 1949).

### HOSPITAL ADMISSIONS

A total of 302 persons were admitted to hospitals, including 285 pilgrims, 9 relatives accompanying patients and 8 non pilgrim officials and inhabitants):—

	Pilgrims	Non-Pilgrims
Rash, under observation ... ..	211	1
Fractures ... ..	8	—
Dysentery (2 positive bacteriologically) 1 (1 negative " ) ...	3	—
Senility ... ..	4	—
Furunculosis ... ..	7	—
Abscesses ... ..	3	—
Intestinal Colics ... ..	2	—
Pyorrhoea ... ..	1	—
Asthma ... ..	1	—
Senility with chronic bronchitis ... ..	1	—
Enteritis with nutrition oedema ... ..	—	—
Pyelitis ... ..	—	—
Acute Bronchitis with debility ... ..	1	—
Vomiting and fainting ... ..	1	—
Orchitis ... ..	1	—
Renal Colics ... ..	3	1
Hemiplegia... ..	2	—
Scabies ... ..	1	—
Heart failure with senility and bronchitis ...	2	—
Acute Bronchitis ... ..	2	—
Ulcer at buttocks ... ..	1	—
Otitis ... ..	1	—
Air Sickness ... ..	1	—
Influenza ... ..	1	—
Acute Pleurisy ... ..	1	—
Rheumatic Fever ... ..	1	—
Ulcer of ear pinna ... ..	1	—
Heat failure with Pneumonia and cellulitis	1	—
Diabetes and debility ... ..	1	—
Wounds (contused) ... ..	2	1
Hepatitis ... ..	—	1
Erysipelas ... ..	1	—
Hysteria ... ..	1	—
Prostatitis and retention of urine ... ..	2	—
Contusion ... ..	3	1
Diarrhoea ... ..	1	—
Hernia (Strangulated) ... ..	1	—
Anemia, resulting from abortion... ..	1	—
Cellulitis (leg) ... ..	1	—
Appendicitis (suspected) ... ..	—	1
Gynecology : Difficult Labour ... ..	1	—
Normal " ... ..	3	—
New Births ... ..	4	—
Pregnancy... ..	1	—
Relatives accompanying patients... ..	9	—
<b>TOTAL ... ..</b>	<b>294</b>	<b>8</b>

*Deaths.*—Four deaths occurred during the pilgrim season, three among pilgrims and one inhabitant of Tor. The causes of death were :

- 1 Acute enteritis with nutritive oedema.
- 1 Senility with chronic bronchitis.
- 1 Heart failure, senility and bronchitis.
- 1 Heart failure, with pneumonia and cellulitis.

### LABORATORY

The laboratory carried out the individual bacteriological examination of the stools of all pilgrims and members of crew arriving by the first three steamers and by aircraft arriving at the same time. As regards succeeding steamers, samples were taken at a rate of 50 per cent gradually diminishing to 10 per cent from the last vessel. The stools were examined in collective tubes of 5 specimens.

A total of 5,825 specimens were thus examined for the cholera vibrio during the pilgrim season with the following results :

- 19 Non-agglutinating and hemolytic for sheep's blood.
- 2            ,,                   ,, non hemolytic for sheep's blood.
- 2 Agglutinating and hemolytic for sheeps' blood.

Pilgrims who proved to be agglutinating vibrio carriers were treated with sulpha-guanidine. From these, specimens were taken repeatedly until the vibrio entirely disappeared from the stools and three negative results given before being allowed to proceed.

Specimens received from hospitals gave the following results :

- 1 Amoebic dysentery.
- 1 Bacillary Dysentery (Flexner).

Specimens of stools were taken from all Indian and Pakistani pilgrims arriving by air (two specimens on two consecutive days).

All Pilgrims suffering from diarrhoea had their stools examined bacteriologically and were kept in hospital until the cessation of this symptom.

*Water.*—Regular examination of water was carried out with the following results :

- 1. Specimens were taken twice from three wells :

- (a) No. of lactose fermenters in 10 cm<sup>3</sup> : 12, 5 and 5 respect.
- (b) No. of lactose fermenters in 10 cm<sup>3</sup> : 15, 8 and 8 respect.
- (c) No. of bacteria in 1 cm<sup>3</sup> : 10, 12 and 20 Respectively.

No. of bacteria in 1 cm<sup>3</sup> : 50, 30 and 25 Respectively.

- 2. Water Tanks : 13 specimens taken with the following results :

Lactose fermenters in 25 cm<sup>3</sup> : 3 present 10 absent.

„	„	50	„ : 5	„	8	„
„	„	100	„ : 9	„	4	„



F.— DISINFECTION :

TABLE NO. 50.—DISINFECTION BY CHEMICAL MEANS

	Alexandria	Port-Said	Suez	Shellal	Tor
Vessels disinfected ... ..	—	—	—	—	30
Railway trucks disinfected... ..	—	—	—	—	—
Cabins occupied by sick ... ..	—	8	2	—	—
Barges (mooring) ... ..	—	467	—	—	—
Barges and boats ... ..	107	18	262	—	—
Holds of vessels disinfected ... ..	134	—	—	—	—
Transport carts and motor cars ... ..	60	—	21	—	—
Effects of pilgrims (by formol)... ..	—	—	—	—	113
Vessels carrying sick ... ..	1	—	1	—	—
Miscellaneous... ..	3	—	210	—	—
Number of stovefulls ... ..	—	212	—	—	—
Boats carrying sick ... ..	—	7	—	—	—
Vessels carrying cattles ... ..	—	13	74	—	—
Vessels treated for disinsectisation (mosquitoes) ... ..	—	—	2,859	—	42

TABLE NO. 51.—DISINFECTION BY STEAM UNDER PRESSURE

	Alexandria	Port-Said	Suez	Shellal	Tor
Bales of wool and cotton rags... ..	2,792prcl or 11,528Kgs	—	—	—	—
Parcels for customs Administ. Used clothes... ..	795prcl	—	—	—	—
Post parcels ... ..	50	—	—	—	—
Effects of porters ... ..	1,311	—	373 Kos	—	—
Parcels disinfected without payment ...	—	—	—	—	—
Parcels and effects belonging to the Quarant. Administ... ..	—	—	—	—	94
Effects of crews of steamers or sailing vessels... ..	—	—	—	—	28
Effects of pilgrims ... ..	—	—	—	—	393
Effects of passengers ... ..	—	1,583	730	—	—
Effects in Kilos ... ..	—	—	8.039	—	—
Parcels for Customs Administration ...	—	2.555	—	—	—

TABLE NO. 52.—CONTROL OF WATER DISTRIBUTION TO VESSELS IN THE PORTS

	Alexandria	Port-Said	Suez
Number of specimens taken from taps supplying vessels ... ..	704	98	149
Number of specimens taken from water boats	91	903	186
<i>Result of bacteriological examination :</i>			
Specimens found fit for use :			
Taps ... ..	669	64	126
Water boats ... ..	91	424	131
Specimens found unfit for use :			
Taps ... ..	35	34	23
Water boats ... ..	—	479	55
Number of times water was purified ... ..	—	287	45
Number of cisterns and water boats disinfected and cleaned ... ..	42	194	51

G.—Control of Hides and Skins, Wool, Animal Products and Debris :

The Quarantine Regulations provide that imported consignments of hides and skins, wool, animal products and debris, should be accompanied by sanitary certificates testifying that the country of origin is free from animal diseases.

\* During war years, however, and in view of the country's great need for hides and skins, the Quarantine Administration agreed to take samples for bacteriological examination from consignments arriving without regular certificates. The goods were released on the samples proving negative for animal diseases.

This emergency arrangement which was prompted by war time conditions remained in force until April 1, 1949. As from that date, it has been decided to discard this arrangement and strictly adhere to Quarantine Regulations. All consignments arriving without regular certificates shall henceforth be re-exported.

During the period from 1st. January, to 31st. March, 1949, the laboratory carried out the following examinations of samples :

TABLE NO. 53.—EXAMINATIONS OF SAMPLES

Goods	Alexandria	Port-Said	Suez	Almaza	Shellal
Wool ... ..	35	6	6	1	1
Hides and Skins ... ..	5	4	2	—	12
Hair... ..	8	—	—	1	—
Salted Guts ... ..	2	—	—	—	—
Shaving Brushes ... ..	12	—	—	7	—

All samples were examined and the results were negative for Anthrax Spores.

TABLE No. 54—CONTROL OF HIDES, SKINS AND ANIMAL DEBRIS

Article	Alexandria			Port-Said			Suez			Shellal		Tor		Kantara
	Import	Export	Transit	Import	Export	Transit	Import	Trans-shipment	Transit	Import	Export	Import		Import
Ox hides ... ..	364,003	—	Bales 16,377	132,842	—	48,715	Kilogr. 191,611	2,597 Bales	135,646 Pieces 1,200	966,119	—	Kilogr. 1,060 Pieces 120	—	—
Sheep and goat skins ...	pieces 3	225,081	495	—	—	—	—	—	—	—	—	—	—	—
Salted guts... ..	Kilogr. 25,720	20,607	—	—	—	26 Barrels	—	3 Boxes	—	—	—	—	—	Kilogr. 1,035
Horns and hoofs ... ..	—	112,032	—	—	—	—	—	—	—	—	—	—	—	—
Wool (in kilos) ... ..	463,034	122,791	109	611,346	—	21,932	260,969	—	—	6,851	8,187	—	—	3,136
Animal hair ... ..	3,827	5,000	—	—	—	—	15,550	—	—	—	—	—	—	—
Calcinated hair ... ..	136	383,154	—	—	—	—	—	—	—	—	—	—	—	—
Bones ... ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Goat hair ... ..	—	—	—	—	—	39 Bales	—	—	—	—	—	—	—	Kilogr. 27,650 Export.
Waste wool ... ..	—	40,000	—	—	—	—	—	—	—	—	—	—	—	—
CONTROL OF RAGS, USED CLOTHES, ETC.														
Rags ... ..	—	—	—	Kilogr. 158,415	—	—	Kilogr. 8,779	—	—	—	—	—	—	—
Used clothes ... ..	682,937	914,464	—	—	—	—	—	—	—	—	—	—	—	—
Used Jute ... ..	—	—	—	Kilogr. 104,304	—	—	—	—	5	139,745	—	—	—	—





## Chapter VIII — CHEST DISEASES

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### *Statistical Data :*

According to the 1948 report, a total of 85,012 tuberculous cases were recorded between 1929 and that year. A further 10,280 cases were detected during the year 1949, making a total of 95,292 cases at the end of 1949.

During the year, the following units were opened :

(1) *Suez Chest Diseases Hospital*.—On 22nd. January, 1949 with an out-patient Dispensary and an in-patient Department.

(2) *Beni Suef Chest Diseases Hospital*.—On 24th. February, 1949 with an out-patient Dispensary and an in-patient Department.

(3) *Mass Radiography Mobile Unit*—Started on 3rd March, 1949.

(4) *A branch of Alexandria Chest Diseases Dispensary at Rosetta*.—On 10th. March, 1949.

(5) *A branch of Aswan Chest Diseases Dispensary at Kom Ombo*.—On 17th. March, 1949.

(6) *Construction of Damietta Chest Diseases Hospital*.—On 19th. September, 1949. with an out-patient Dispensary and an in patient Department

Thus, the Chest Diseases units are now as follows :

24 dispensaries.

17 branch dispensaries.

15 in-patient departments within dispensaries.

5 sanatoria.

2 surgical T.B. institutions.

4 preventoria.

1 colony for convalescents.

The following are the occupations of tuberculous patients detected during the year 1949 :

582 Tradesmen : consisting of :

177 foodstuff vendors.

54 poultry and cattle merchants.

108 grocers.

60 fruiterers.

183 other trades.

719 Employees : including :

362 civil servants.

151 commercial employees

51 teachers.

155 other employments.

2,880 Craftsmen : consisting of :

- 94 cooks.
- 210 barmen.
- 64 servants (farrashes).
- 150 barbers.
- 173 drivers.
- 138 shoemakers.
- 85 painters.
- 262 employees in firms.
- 186 mechanics.
- 466 other occupations.
- 73 waiters.
- 81 domestic servants.
- 46 gate-keepers.
- 91 laundrymen.
- 166 tailors.
- 173 carpenters.
- 54 building labourers.
- 317 weavers.
- 61 printers.

1,866 Farmers.

374 Pupils.

3,839 Unemployed : including :

- 2,426 invalids.
- 825 children.
- 580 unemployed.

Of 181,544 new patients examined during the year, 10,280 were found positive for tuberculosis. Of these, 648 were children (less than 10 years old) and the remaining 9,632 were adults.

Of 8,470 contacts (3,336 children and 5,134 adults) examined, 295 developed tuberculosis.

Health visitors paid 32,596 home visits this year, and the medical officers 10,216.

Appended to this report are detailed statistical data of the work carried out by the various dispensaries and other institutions.

#### RESUME OF ACTIVITIES IN MEDICAL AND SOCIAL SPHERES

Medical, social and preventive activities proceeded according to plan. During this year, the following measures were undertaken: In pursuance of the policy of developing anti-tuberculosis service in Egypt, the Ministry has, with the aid of the inhabitants, completed the construction of several institutions for tuberculosis, namely :

- (a) Suez Chest Diseases unit—erected on a site of land ten feddans in area. It consists of an out-patient dispensary and a 50-bed in-patient Department, capable of future expansion. The total cost of the buildings amounted to L.E. 60,000, of which L.E. 32,000 were contributed by Suez inhabitants. The equipment cost L.E. 10,000. The unit was opened for treatment on 22nd. January, 1949.



(b) Beni Suef Chest Diseases unit—erected on a site of land two feddans in area and consists of an out-patient dispensary and a 20-bed in-patient department. The buildings cost L.E. 20,000 of which L.E. 2,600 were contributed by the Provincial Council. The cost of equipment amounted to L.E. 5,000. It was opened for treatment on 24th. February 1949.

(c) Damietta Chest Diseases unit—erected on a site of land ten feddans in area. It also consists of an out-patient dispensary and a 100-bed in-patient department capable of future expansion. The cost of buildings was L.E. 76,000 of which L.E. 24,097 were subscribed by the inhabitants and the Misr Silk Spinning Co. of Damietta. Equipment of the hospital cost L.E. 20,000. It was opened for treatment on 19th. September 1949.

II.—B.C.G. vaccination has drawn the interest of most countries of the world and Egypt was no exception. By courtesy of the World Health Organization, this Ministry communicated with the B.C.G. Serum Institute of Copenhagen. Dr. Johannes Holm, the Director of the Serum Institute arrived in Egypt in February 1949 and on behalf of the World Health Organization, concluded an agreement with the Egyptian Government for launching a Joint Vaccination Campaign in Egypt, for one year. Under the agreement, the Institute was to provide the necessary vaccine for the Campaign together with personnel and equipment for two mobile teams. The Egyptian Government would provide personnel and equipment for four teams. A team is composed of a medical officer, two nurses, a secretary, and a number of junior staff. A credit of L.E. 8,000 has been allocated by the Egyptian Government for the purpose. The Campaign was started on 1st December 1949 by testing and vaccinating the nursing personnel in Cairo. A total of 7,771 cases were tested by Turberculin until the end of the year. 1,061 Cases received B.C.G. vaccination. Work is still proceeding.

III.—The Ministry is meanwhile undertaking a mass survey of the population to determine the extent of the spread of tuberculosis in Egypt, so that in the light of the data obtained, adequate control measures may be provided. A mobile radiographical unit had been obtained for the purpose and was first employed in the Agricultural and Industrial Exhibition held in Cairo in March 1949. Later, the unit proceeded to factories, companies and schools. Of a total of 20,130 persons examined by the unit during the year, 109 persons were found positive, 456 persons suspicious and the remaining 19,565 negative as per details given below :

	No examined	Positive cases	Suspicious	Negative
Visitors to the Exhibition during March and April ... ..	1,017	21	—	996
Al Azhar University Personnel and students (May and June) ... ..	2,256	14	76	2,166
Boys Orphanage, Agouza (June) ... ..	236	1	13	222
Shubra El Kheima Factories (66 in number) during July, August and September ...	11,005	45	219	10,741
Officers and men of the Buluk Nizam Force in Cairo and Provinces as well as the Royal Police College during October and December, (the apparatus topped during November) ... ..	5,617	28	148	5,441

Positive and suspicious patients were called to the headquarters of the Unit in Khalifa Chest Diseases Dispensary for examination and making enlarged films.

IV.—The Ladies Society for Health Improvement has undertaken a wide propaganda activity in conjunction with the Health Propaganda Section of the Ministry. Contributions were collected and stamps sold during the Tuberculosis Week to the value of L.E. 26,166.233 mills.

This sum was utilised in providing food and clothing and in payment of rents for destitute tuberculous patients and their families who are under the care of the Society. The Society was also instrumental in finding suitable work to able ex-patients and in building a Colony at the Pyramids for the accommodation and education of children of tuberculosis patients.

V.—Since the annual subsidy of L.E. 15,000 provided by the Government for the aid of poor tuberculosis patients proved insufficient, a credit of L.E. 45,000 has been applied for this year. During the year, a total of L.E. 33,172 was spent in aid of 2,448 poor families.

VI.—As in previous years, children residing in Cairo Preventoria were sent to Alexandria during the Summer. They were sent on three batches of 30 children each to spend a fortnight in Alexandria as a form of heliotherapy. They are accommodated in the Maritime Sanatorium at San Stefano.



The following are details of the different courses of treatment given at the dispensaries during the year :

TABLE No. 56.—LISTS OF THE DIFFERENT FORMS OF TREATMENT FOLLOWED  
IN THE DISPENSARIES AND THE RESULTS IN THE YEAR 1949.

DOMICILIARY TREATMENT				ARTIFICIAL PNEUMOTHORAX					
			Number				Number		
CONDITION ON 1ST EXAMINATION	Tuberculous Patients ... ..			9,011	Patients treated A. P. ... ..			3,522	
	Sputum	positive ... ..	6,308	1st inductions ... ..			764		
		negative ... ..	2,703	Refills ... ..			38,160		
	Lesion	unilateral ... ..	4,385	CONDITION BEFORE TREATMENT	Sputum	Positive ... ..	2,859		
		bilateral ... ..	4,626			Negative ... ..	663		
cavitary ... ..		4,224	Lesion		Unilateral ... ..	2,973			
Last Sputum Ex.	positive ... ..	5,344			Bilateral ... ..	549			
	negative ... ..	3,667			Cavitary ... ..	2,281			
RESULT OF TREATMENT	Increase of weight ... ..			3,915	Haemoptysis ... ..			329	
	Decrease of weight ... ..			1,610	Unilateral A.P. ... ..			3,197	
	Stationary ... ..			2,463	Bilateral A.P. ... ..			240	
	Died ... ..			1,023	Extrapleural A.P. ... ..			18	
	Unable ... ..			2,757	Continued refills ... ..			2,057	
	Walking ... ..			2,918	STOPPED A.P. AND CAUSE	Adhesions... ..			337
	Light Work ... ..			2,017		Bilateralisation ... ..			188
	Full Work ... ..			296		Effusion .. ..			220
				RESULT OF TREATMENT		Sputum still positive ... ..			1,569
						,, ,, negative ... ..			691
					,, returned negative ..			1,086	
					,, ,, positive ... ..			176	
					Increase of weight ... ..			1,923	
					Decrease of weight ... ..			785	
					Stationary .. ..			640	
					Died ... ..			174	
					Incapable ... ..			1,083	
					Walking ... ..			804	
					Light Work ... ..			1,204	
					Full work ... ..			257	



TABLE NO. 57.—STATISTICS OF PATIENTS IN SANATORIA AND IN-SECTIONS OF DISPENSARIES (TANTA, MANSOURA, DAMANHOUR, ZAGAZIG, DAMIETTA, SHERBIN, ZIFTA, FAYOUM, BENI SUEF, MINIA, ASSIUT, SOUHAG AND ASWAN) IN 1949, AND THE RESULT OF THEIR TREATMENT.

		Sanatoria							In-pt. sections in Disp.	
		Almaza	Abbassia	Giza	Alex.	Mehalla el-Kobra	Suez	Port-Said		
No. of In-patients discharged ...		1,735	1,081	392	275	388	65	437	1,118	
Before Admission	Sputum ... ..	{ positive ...	1,018	698	238	177	277	65	353	758
		{ negative	717	383	154	98	111	—	84	360
	Lesion... ..	{ unilateral	751	463	159	215	—	52	318	868
		{ bilateral ...	984	618	233	60	388	13	119	250
Treatment given	Temperature ... ..	{ cavitory ...	551	615	118	58	193	8	107	632
		{ normal ...	1,186	389	277	207	265	18	279	642
	General Treatment ... ..	{ abnormal	549	692	115	68	123	47	158	476
			4,774	1,081	250	175	173	15	548	815
Cause of discharge	Exercise Treatment ... ..		2,330	468	138	100	215	40	217	349
	Gold therapy {	No. of patients ... ..	—	19	—	—	14	1	—	17
		No. of injections ... ..	199	183	—	—	65	24	—	440
	Condition on Discharge	Tuberculin inject. {	No. of patients ... ..	—	—	—	—	—	—	2
No. of injections ... ..			—	—	—	—	—	—	90	
A.P. {		Inductions ... ..	861	358	138	113	152	25	201	472
		Refills ... ..	10,504	6,811	3,498	2,034	2,522	438	3,118	9,906
Condition on Discharge	Extrapleural A.P. ... ..		2	1	—	—	158	—	230	2
	Phrenic Crush ... ..		297	170	28	18	27	7	22	108
	Pleuratomy ... ..		35	6	—	—	—	—	1	—
	Aspiration ... ..		298	322	97	60	90	3	68	141
Condition on Discharge	Thoracoplasty ... ..		120	14	—	—	1	—	—	4
	Adhesiectomy ... ..		459	239	20	45	60	11	52	122
	Complications ... ..		65	369	—	—	10	—	2	103
	No. of other injections given ...		7,265	14,621	2,082	—	635	216	1,101	5,053
Condition on Discharge	Patients went on leave (and did not return) ... ..		208	9	88	13	20	3	11	46
	At request {	Pts. refused treatment...	414	600	141	81	8	1	2	159
		„ having special difficulties ... ..	95	61	—	—	93	22	308	155
	Condition on Discharge	With agreement of physician ...		1,018	411	116	157	267	39	116
Weight {		increase of weight ... ..	1,166	613	182	194	277	48	337	750
		decrease of weight ... ..	428	183	88	46	82	5	70	188
Condition on Discharge		Stationary ... ..		141	285	122	35	29	12	30
	Temperature {	Normal ... ..	1,427	718	290	207	320	53	386	845
		Abnormal ... ..	308	363	102	68	63	12	51	273
	Condition on Discharge	Sputum {	still positive ... ..	822	491	229	119	168	—	158
„ negative ... ..			356	103	89	86	103	—	84	366
Successful A.P. continued ... ..		became negative ... ..	385	378	65	57	107	38	194	322
		„ positive ... ..	172	109	9	13	10	27	1	23
Condition on Discharge	A.P. failed ... ..		861	506	114	89	140	39	188	434
	Condition improved ... ..		197	113	24	24	49	5	13	190
	„ worse ... ..		1,211	544	170	153	238	39	286	759
	„ stationary ... ..		85	89	18	63	58	11	21	114
Condition on Discharge	Died ... ..		302	351	157	35	82	12	106	206
			137	97	47	24	10	3	24	39
	Ability to work {	working { fully ... ..	19	18	46	18	9	—	2	43
		partially ... ..	1,141	355	118	117	180	41	284	543
Condition on Discharge	incapable ... ..		438	616	181	116	199	21	127	493
	Average duration of stay in days		128	185	142	66	160	90	83	98
	Pts. stayed 6 months or more ...		723	117	112	209	147	25	26	326
	„ less than 6 months ...		1,012	964	280	113	241	40	411	792

TABLE No. 58.—No. OF T.B. POSITIVE CASES NOTIFIED BY THE CHEST DISEASES DISPENSARIES DURING THE YEAR 1949, ACCORDING TO RESIDENCE

Dispensaries	Cairo	Alex.	Damietta	Port-Said	Canal-Suez & Ismailia	Behera	Gharbia	Menoufia	Dakahlia	Sharkia	Kalutbia	Giza	Beni-Suef	Fayoum	Minia	Assiut	Geirga	Qena	Asw	Oases	Total
oulaq ...	1,231	—	30	9	11	2	8	51	13	3	126	65	2	3	5	8	6	6	11	1	1,591
Mobtadayan ...	487	19	—	8	17	10	11	21	11	6	48	397	6	—	4	3	4	6	5	—	1,063
Khalifa ...	922	12	—	—	15	13	14	52	17	23	10	12	15	25	14	10	12	4	5	—	1,175
Damanhour ...	—	2	—	—	—	167	53	—	—	—	—	—	—	—	—	—	—	—	—	—	222
Alexandria ...	—	713	—	—	—	179	—	—	—	—	—	—	—	—	—	—	—	—	—	—	892
Bacous ...	—	137	—	—	—	9	1	—	—	—	—	—	—	—	—	—	—	—	—	—	147
Tanta ...	—	—	—	—	—	8	236	18	—	—	—	—	—	—	—	—	—	—	—	—	262
Mansoura ...	1	—	1	—	—	—	80	—	277	6	—	1	—	—	—	—	—	—	—	—	366
Shebin el Kom ...	—	—	—	—	—	—	—	245	—	—	22	—	—	—	—	—	—	—	—	—	268
Mehalla el Kobra ...	—	—	—	—	—	2	435	8	25	—	—	—	—	—	—	—	—	—	—	—	470
Zagazig ...	—	—	—	2	22	—	2	2	28	268	11	—	—	—	—	—	—	—	—	—	335
Damietta ...	—	1	199	—	—	—	62	2	268	—	—	—	—	—	—	—	—	—	—	—	532
Port-Said ...	—	—	1	501	55	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	560
Sherbin ...	1	—	1	—	—	1	149	3	132	2	—	—	—	—	—	—	—	1	—	—	290
Zifta ...	—	—	—	—	274	—	179	3	119	—	—	—	—	—	—	—	—	—	—	—	301
Suez ...	—	—	—	—	—	—	—	—	—	—	—	—	39	277	—	1	—	—	—	—	275
Fayoum ...	—	—	—	—	—	—	—	—	—	—	—	—	157	—	—	—	—	—	—	—	316
Beni Suef ...	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	157
Minia ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	274	33	—	—	—	—	300
Assiut ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	236	5	2	—	—	243
Souhag ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	151	—	—	—	151
Qena ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	218	4	—	224
Aswan ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	131	—	131
TOTAL ...	2,642	884	232	520	394	392	1,230	405	892	309	217	475	221	305	298	291	179	237	156	1	10,280



TABLE No. 59.—T.B. DEATHS REPORTED TO THE DISPENSARIES DURING THE YEAR 1949  
ACCORDING TO AGES

Dispensaries	1—5 Years	5—15 Years	15—25 Years	25—35 Years	35—45 Years	Above 45 Years	TOTAL
Boulaq ... ..	8	36	77	48	20	13	202
Mohtadayan ... ..	14	28	39	47	28	13	169
Khalifa ... ..	1	3	65	123	98	78	368
Damanhour ... ..	—	—	10	11	15	12	48
Alexandria ... ..	11	19	21	26	14	10	101
Bacous ... ..	—	1	3	1	—	—	5
Tanta ... ..	3	7	14	12	12	14	62
Mansoura ... ..	—	8	26	13	10	14	71
Shebin el-Kom ...	1	5	22	18	17	3	66
Mehalla el-Kobra ...	—	3	15	18	19	11	66
Zagazig ... ..	—	—	15	7	8	—	30
Damietta ... ..	—	2	27	11	4	2	46
Port-Said ... ..	2	6	25	27	22	12	94
Sherbin ... ..	—	6	8	16	12	6	48
Zifta ... ..	1	—	6	9	2	—	18
Suez ... ..	—	—	7	13	5	1	26
Fayoum ... ..	2	9	12	37	23	12	95
Beni Suef ... ..	—	2	9	26	8	5	50
Minia ... ..	1	5	8	22	27	9	72
Assiut ... ..	—	3	14	8	4	3	32
Souhag ... ..	1	6	14	8	4	2	35
Qena ... ..	1	2	13	10	6	1	33
Aswan ... ..	—	4	8	6	2	3	23
TOTAL ...	46	155	458	517	360	224	1,760



TABLE NO. 60.—SHOWING PROGRESS IN NUMBER OF CHEST DISEASES UNITS FROM 1929 TO 1949.

Year	Chest Dis. Dispensaries			Chest sanatoria	T.B. Bone Sanatoria	Preventoria	T. B. convalescent colonies
	Dispensaries	Branches	In-Patient sections				
1929... ..	2	—	—	—	—	—	—
1930... ..	3	—	—	—	—	—	—
1931... ..	3	—	—	—	—	—	—
1932... ..	3	—	—	—	—	—	—
1933... ..	4	—	—	—	—	—	—
1934... ..	4	—	—	1 <sup>(1)</sup>	—	—	—
1935... ..	5	—	—	1	—	—	—
1936... ..	6	—	—	1	1 <sup>(2)</sup>	—	—
1937... ..	8	—	—	1	1	—	—
1938... ..	12	—	2	2	1	1	—
1939... ..	13	—	2	2	1	1	—
1940... ..	14	—	4	2	1	4	—
1941... ..	14	1	4	2	1	4	—
1942... ..	15	3	6	2	2	4	—
1943... ..	15	3	6	2	2	4	1
1944... ..	16	4	8	3	2	4	1
1945... ..	17	4	10	3	2	4	1
1946... ..	19	12	12	4	2	4	1
1947... ..	19	14	12	5	2	4	1
1948... ..	21	15	13	5	3	4	1
1949... ..	24	17	15	5	3	4	1

N.B.—<sup>(1)</sup> Almaza Sanatorium, had been attached to this Section in September 1934.

<sup>(2)</sup> Maritime Sanatorium, Alexandria, had been attached to this Section in September 1936.

TABLE NO. 61.—ANNUAL RETURN OF BEDS AVAILABLE IN THE IN-PATIENT UNITS  
AT THE END OF THE YEAR 1949

Unit	Beds for Sur- gery	1 <sup>st</sup> Class		2 <sup>nd</sup> Class		3 <sup>rd</sup> Class Paying		3 <sup>rd</sup> Class Gratis			TOTAL
		F.	M.	F.	M.	F.	M.	F.	M.	Children	
Almaza Sanatorium	128	—	10	—	72	—	*132	—	540	—	882
Abbassia Chest Dis. Hospital ... ..	30	—	—	24	—	44	—	328	—	74	509
Giza Sanatorium ...	—	—	—	—	—	—	—	—	155	—	155
Alexandria Sanato- rium ... ..	—	—	—	—	—	—	7	30	79	10	126
Mehalla el Kobra Sanatorium ...	—	—	—	2	6	3	6	52	88	4	161
Suez Chest. Dis. Hospital ... ..	—	—	—	1	1	2	2	22	22	—	50
Maritime Sanat, Port Said ... ..	(Pulmonary T.B.)	—	—	1	1	9	9	31	85	24	160
Damanhour Dis- pensary ... ..	—	—	—	—	—	—	—	—	20	—	20
Tanta Dispensary	—	—	—	—	—	—	—	—	18	—	18
Mansoura , ,	—	—	—	—	—	—	—	10	15	—	25
Zagazig , ,	—	—	—	—	—	—	—	—	20	—	20
Damietta , ,	—	—	—	—	—	8	8	50	50	—	116
Sherbin , ,	—	—	—	—	—	—	—	—	30	—	30
Zifta , ,	—	—	—	—	—	—	—	—	22	—	22
Fayoum , ,	—	—	—	—	—	—	—	—	30	—	30
Beni Suef , ,	—	—	—	—	—	—	—	10	15	—	25
Minia , ,	—	—	—	—	—	—	—	6	14	—	20
Assiut , ,	—	—	—	—	—	—	—	15	35	—	50
Souhag , ,	—	—	—	—	—	—	—	4	20	—	24
Aswan , ,	—	—	—	—	—	—	—	7	15	—	22
Maritime Sanat. Alexandria ...	(For Bones)	—	—	—	—	—	—	24	25	51	100
T.B. Bone Hosp. Helwan ... ..	—	—	—	1	3	4	12	60	65	55	200
Helwan Prevento- rium ... ..	—	—	—	—	—	—	—	—	—	90	90
Marg Preventorium.	—	—	—	—	—	—	—	—	—	50	50
Alexandria Preven- torium ... ..	—	—	—	—	—	—	—	—	—	54	54
Assiut Prevento- rium ... ..	—	—	—	—	—	—	—	—	—	50	50
Village Settlement At Marg ... ..	No. of Residents in the Village	—	—	—	—	—	—	—	79	—	79
									Families		
TOTAL ... ..	158	—	10	29	83	70	176	649	1442	462	3,079

\* N.B.—This number includes { 30 beds for students.  
32 „ E.S.R. and  
3 „ Staff of Tramway Co. Cairo.







	Helwan	Marg	Alexandria	Assiut
Number of Children on 1st. January 1949 ... ..	91	39	44	21
" " " admitted during the year ...	81	2	31	29
" " " discharged " " " ...	98	13	75	19
" " " remaining on 31st, Dec. 1949	74	28	—	31

TABLE NO. 64 — ANNUAL RETURN OF CASES TREATED IN ALEXANDRIA MARITIME SANATORIUM AND

Unit	New Patients											Old Patients									
	No. of New Patients	Ages						Cases				No. of Old Patients	Cases				Treat-ment		Minor Operations	X. Ray	Dressings
		Under 5 years.		5—10 years		Above 10 years.		Rickets	T.B. Spine	T.B. Bones of Joints	Other Dis.		Rickets	T.B. Spine	T.B. Bones of Joints	Other Dis.	By Electricity	By Ult. Violet			
		M.	F.	M.	F.	M.	F.										By Electricity	By Ult. Violet			
Alexandria ...	170	21	15	24	13	65	32	—	35	50	85	267	—	22	73	172	—	1	10	91	267
Helwan ...	901	40	46	59	84	288	384	28	324	324	225	1,149	9	431	643	66	—	—	—	—	—
<b>TOTAL ...</b>	<b>1,071</b>	<b>61</b>	<b>61</b>	<b>83</b>	<b>97</b>	<b>353</b>	<b>416</b>	<b>28</b>	<b>359</b>	<b>374</b>	<b>310</b>	<b>1,416</b>	<b>9</b>	<b>453</b>	<b>716</b>	<b>238</b>	<b>—</b>	<b>1</b>	<b>10</b>	<b>91</b>	<b>267</b>

	Alexandria M. S.	Helwan B. H.
Number of patients On 1st. Jan. 1949 ... ..	80	125
" " " Admitted during the year ...	112	301
" " " Discharged " " " ...	98	250
" " " remaining On 31 st, Dec. 1949	94	176

THE PREVENTORIA DURING THE YEAR 1949

Ages				Details regarding relatives								Mantoux Test in child			Diseases attacked children During their residence						Children Discharg ed		Remarks	
9-10 Years.		Morethan 10 Years.		Relation					Condition				Positive	Negative	Not Done	Skin	Stomach	Ears, nose & throat	Ophthalmic	Chest	Other diseases	Discharged		Died
M.	F.	M.	F.	Father	Mother	Brother	Sister	Others	Died	Alive	Sputum Neg	X-Ray-Pos												
—	4	2	—	13	31	1	—	—	—	49	4	45	24	3	54	8	5	29	2	32	58	86	12	
—	—	1	—	1	—	1	—	—	—	2	—	2	—	—	2	1	—	—	—	—	1	13	—	
2	—	2	—	20	3	8	—	—	—	31	31	—	1	30	—	—	—	—	—	—	—	74	1	
1	—	—	—	7	19	2	—	1	4	25	—	29	—	—	29	12	—	—	45	29	31	19	—	
3	4	5	—	41	53	12	—	1	4	107	35	76	25	33	85	18	5	29	47	61	90	192	13	

ELWAN HOSPITAL FOR BONE DISEASES DURING THE YEAR 1949

IN-PATIENT SECTION																							
New Patients												Discharged											
No. of New Patients Admitted	Ages						T.B. Spine	T.B. Knee	T.B. Hip	T.B. Bones of Joints	Other Diseases	No. of Pat. Discharged	Result					Treat. By Ultra Violet	Major Operations	Minor Operations	Plaster	X — Ray	Streptomycin Inj.
	Under 5 Years		5-10 Yrs.		above 10 Yrs.								Died	Cured	Stationary	Improved	Discharged. in Plaster						
	M.	F.	M.	F.	M.	F.																	
112	13	7	19	11	37	25	45	16	19	28	4	98	2	29	22	18	27	—	10	—	158	191	90
301	—	16	30	12	123	115	108	30	11	65	37	250	18	106	50	67	9	250	60	9	264	861	1,995
413	13	23	49	23	165	140	153	46	30	93	91	348	20	135	72	85	36	250	70	9	422	1,052	2,085





TABLE NO. 65.—ANNUAL RETURN OF CHEST DISEASES DISPENSARIES DURING THE YEAR 1949.





TABLE 66.—ANNUAL RETURN OF SANATORIA AND BRANCHES OF CHEST DISEASES DISPENSARIES DURING THE YEAR 1949.

CHEST DISEASES SANATORIA AND HOSPITALS.

	In-Patient Sections at the Dispensaries															Almaza Sanat.	Abhassia Hosp.	Giza Sanat.	Alexandria Sanat.	Mehalla El Khobra Sanat.
	Damanhur	Tanta	Mansoura	Zagazig	Damietta	Port-Said	Sherbin	Zifta	Suez	Fayoum	Beni Suof	Minia	Assint	Souhag	Aswan					
No. of Patients on 1st Jan. 1949 ...	—	17	24	18	65	80	26	17	—	30	—	17	49	20	22	691	446	163	131	166
No. of Patients Admitted during the year	—	58	72	65	387	494	101	88	111	82	36	57	112	79	65	1876	1099	412	322	391
No. of Patients discharged during the year	—	61	75	67	337	437	100	84	65	88	16	55	101	79	68	1735	1081	401	275	388
No. of Patients on December 31, 1949...	—	14	21	16	115	137	27	21	46	24	20	19	60	20	19	832	464	164	178	159
Average stay ...	—	89	123	125	40	83	100	71	90	124	96	114	151	72	125	128	159	142	101	124

### In-Patient Sections at the Dispensaries

No. of Patients on 1st Jan. 1949 ...	—	17	24	18	65	80	26	17	—	30	—	17	49	20	22	691	446	153	131	156
No. of Patients Admitted during the year	—	58	72	65	387	494	101	88	111	82	36	57	112	79	65	1876	1099	412	322	391
No. of Patients discharged during the year	—	61	75	67	337	437	100	84	65	88	16	55	101	79	68	1735	1081	401	275	388
No. of Patients on December 31, 1949...	—	14	21	16	115	137	27	21	46	24	20	19	60	20	19	832	464	164	178	159
Average stay ...	—	89	123	125	40	83	100	71	90	124	96	114	151	72	125	128	159	142	101	124





## Chapter IX—VENEREAL AND SKIN DISEASES

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The total number of new patients attending venereal and skin diseases units during the year was 253,118 (93,446 males and 159,672 females) as compared with 267,460 new patients during the previous year.

The number of attendances was 461,344 as against 466,818 in 1948.

### *Gonorrhoea :*

Of a total of 7,259 new patients returned positive for gonorrhoea, 5,314 patients (3,731 males and 1,583 females) suffered from acute gonorrhoea as against 7,681 in 1948.

### *Syphilis :*

Of a total of 10,292 (4,466 males and 5,826 females) new syphilis cases, 2,752 (1,873 males and 879 females) were of the acute type, as against 3,798 acute cases in 1948.

### *Other Venereal Diseases :*

These numbered 5,380 (924 males and 4,456 females) as against 1,173 in the previous year.

### *Technical Works :*

Different propaganda methods are used by the venereal diseases units to demonstrate to the public the evils of these diseases and the unsightly and ruinous deformities they leave behind.

Penicillin is now used extensively in the treatment of acute gonorrhoea and will shortly be used in the treatment of acute syphilis as well.

Great strides have been made in the fight against favus particularly among school children. Some 26 units will soon be equipped with X-ray apparatus for the purpose.

Special interest is taken in the treatment of scabies, a widespread disease. Benzil benzoate is supplied to venereal diseases units as well as some 100 rural health centres for the treatment of scabies. Besides, there are two mobile treatment units, one in Minia Province and another in Sharkia province for this purpose.

The two lock hospitals at Hod el Marsoud, Cairo, and Gabbari, Alexandria, have been converted into venereal diseases hospitals and provided with in-patient accommodation for syphilis and skin diseases patients and out-patient departments for the treatment of venereal diseases.

Every endeavour is made to increase the number of venereal diseases units.



TABLE NO. 67.—NEW PATIENTS AND VISITS TO THE SKIN AND VENEREAL DISEASES HOSPITALS DURING 1949

ALEXANDRIA HOSPITAL															
CAIRO HOSPITAL															
	Syph.			Gon.			Skin.		Other. Dis		Total				
	M	F	Total	M	F	Total	M	F	Total	M	F	Total	M	F	Total
In-patients	54	51	105	25	73	98	22	33	55	—	—	—	101	157	258
	—	138	138	—	81	81	—	17	17	—	—	—	—	236	236
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	54	189	243	25	154	179	22	50	72	—	—	—	101	393	494
Out-patients	107	505	612	73	232	305	558	1,113	42	311	780	1,861	24	18	60
	—	138	138	—	—	—	—	—	—	—	—	138	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	107	643	750	73	232	305	558	1,113	42	311	780	1,999	24	18	60
Total of in and out-patients...															
161	832	993	98	386	484	580	1,163	42	311	881	2,392	59	120	161	2,552
Number of Visits ... ..															
440	2,208	2,648	602	5,171	5,773	1,472	2,283	—	—	2,514	9,662	460	417	877	10,539

TABLE No. 68.—NEW CASES OF SYPHILIS IN VENEREAL DISEASES HOSPITALS DURING 1949

	EARLY CASES						LATE CASES						Herd		TOTAL	
	Primary		Second		TOTAL		Tert.		Latent		Nervous					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Cairo Hospital ...	18	8	31	158	49	166	4	4	68	144	7	—	33	80	161	394
Alexandria Hosp.	14	13	11	8	25	21	10	5	11	93	12	2	1	2	59	20
TOTAL... ..	32	21	42	166	74	187	14	9	79	237	19	2	34	82	220	514

NEW CASES OF GONORRHOEA DURING 1949

	Acute		Chronic		TOTAL	
	M.	F.	M.	F.	M.	F.
Cairo Hospital ...	41	129	57	257	98	386
Alexandria Hosp. ...	3	—	4	137	7	137
TOTAL ... ..	44	129	61	394	105	523

CURED CASES OF VENEREAL DISEASES DURING 1949

	OUT-PATIENTS				IN-PATIENTS			
	Syph.		Gon.		Syph.		Gon.	
Cairo Hospital ...	5	29	50	162	54	189	25	154
Alexandria Hosp. ...	19	13	6	—	29	107	—	137
TOTAL ... ..	24	42	56	162	83	296	25	291

INFECTED CONTACTS

	Syph.		Gon.	
	M.	F.	M.	F.
Cairo Hospital ...	27	16	6	12
Alexandria Hospital.	—	—	—	—
TOTAL ... ..	27	16	6	12

CURED SKIN DISEASES CASES DURING 1949

	Scabies		Favus	
	M.	F.	M.	F.
Cairo Hospital ...	35	65	—	—
Alexandria Hospital.	67	120	20	51
TOTAL ... ..	102	185	20	51



TABLE NO. 69.—CASES OF SYPHILIS IN VENEREAL DISEASES CLINICS DURING 1949

Locality of Clinic	ACUTE SYPHILIS						OTHER STAGES								TOTAL	
	Primary		Second.		TOTAL		Tert.		Latent		Nervous		Herd.			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Sayeda Zeinab	143	8	43	28	168	36	9	9	53	97	2	—	15	23	247	165
Shubra	120	16	44	34	164	50	13	11	87	107	1	1	8	20	273	189
Gamalia	129	17	102	66	231	83	20	8	81	98	2	1	17	14	351	204
Abhassia	31	3	10	10	41	13	9	6	65	51	1	1	7	3	123	74
Old Cairo	13	1	15	10	28	11	—	—	10	15	1	—	4	5	43	31
Khalifa	33	1	16	9	49	10	9	1	8	35	1	—	3	7	90	53
Heliopolis	32	2	10	5	42	7	12	3	40	8	—	—	2	2	96	29
Port-Said	1	—	19	7	20	7	4	4	4	41	2	—	4	7	34	59
Port Said Health Centre	1	1	2	9	3	10	—	—	13	64	1	—	8	21	25	95
Ismailia	5	—	17	18	22	18	2	8	52	156	—	—	4	15	8	197
Suez	52	5	47	16	99	21	4	10	43	47	1	1	11	7	158	86
Damietta	—	—	2	5	2	5	4	3	27	98	—	1	3	4	36	111
Benha	6	—	3	12	9	15	4	5	26	46	1	—	6	14	46	77
Shebin el Kom	11	—	11	14	22	4	8	4	38	36	—	—	20	21	88	75
Menouf	1	1	6	5	7	6	8	4	17	25	2	1	2	2	36	38
Tanta	30	11	24	21	54	32	36	39	104	305	—	—	47	96	241	472
Mehalla el Kobra	20	2	19	19	39	21	24	12	23	82	4	1	21	14	111	130
Kafr el Zayat	—	—	11	9	11	9	1	2	53	91	1	—	15	13	81	115
Zagazig	16	1	32	26	48	27	16	6	29	57	—	—	10	7	103	97
Faccus	5	—	4	15	9	15	4	2	47	201	2	—	19	24	81	242
Mansoura	10	2	17	14	27	16	15	10	63	149	3	—	34	37	142	212
Mit Ghamr	4	2	23	8	27	10	24	9	14	142	—	—	33	49	98	210
Damanhour	23	3	32	45	55	48	5	6	36	48	4	3	18	19	118	124
Kafr el Dawar	2	—	5	4	7	4	3	—	21	45	—	—	1	1	32	50
Giza	49	5	21	12	70	17	9	7	14	29	1	—	11	11	105	64
Fayoum	16	4	26	29	42	33	36	73	14	36	1	1	7	11	100	154
Sennuris	1	—	34	37	35	37	4	14	14	45	—	—	29	14	82	110
Beni Suef	34	3	25	20	59	23	7	16	8	31	1	—	6	13	81	83
Minia	2	—	38	15	49	15	11	8	34	82	—	—	12	10	97	115
Samalout	2	—	13	9	15	9	8	5	35	64	—	—	10	19	68	97
Assiut	28	1	10	9	38	10	8	14	94	268	—	—	44	58	184	350
Deirout	3	—	11	22	14	22	3	3	8	27	1	—	1	1	27	53
Gerga	30	10	93	126	123	136	4	3	10	13	1	—	7	14	145	166
Tahta	20	—	25	16	45	16	18	43	116	307	1	3	53	61	233	430
Suhag	5	—	20	14	25	14	11	24	98	201	—	—	22	20	156	259
Qena	11	1	38	35	49	36	14	26	30	28	—	—	32	55	125	245
Nag' Hammadi	36	—	16	16	52	16	40	53	46	191	1	—	9	43	148	303
Luxor	11	1	12	8	23	9	2	2	62	112	—	—	8	16	95	139
Aswan	35	1	6	—	41	1	3	3	24	107	3	—	16	21	87	132
TOTAL	971	102	902	777	1873	879	412	456	1563	3685	39	14	579	792	4466	5826

TABLE NO. 70.—NEW CASES AND VISITS TO THE SKIN

LOCALITY OF CLINIC	NEW CASES									
	Syphilis		Gonorrhoea		Skin Dis.		Other Dis.		TOTAL	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Sayed Zeinab ... ..	247	165	465	155	2,346	3,509	37	368	3,985	4,197
Shubra ... ..	273	189	646	405	3,875	14,092	74	32	4,868	14,718
Gamalia ... ..	351	204	834	514	1,485	1,481	113	724	2,786	2,923
Abbassia' ... ..	123	74	214	286	2,243	3,033	68	84	2,648	3,477
Old Cairo ... ..	43	31	55	120	760	1,165	1	358	859	1,674
Khalifa ... ..	90	53	76	209	1,087	5,937	17	89	1,279	6,288
Heliopolis ... ..	96	20	93	3	1,134	2,241	—	176	1,323	2,440
Port-Said ... ..	34	59	80	39	2,039	2,997	79	527	2,232	3,622
Port Said Health Centre ...	25	95	14	49	1,696	2,270	—	93	1,735	2,597
Ismailia ... ..	80	197	87	26	1,088	2,173	—	412	1,235	2,838
Suez... ..	158	86	284	72	1,593	4,622	58	1594	2,363	6,374
Damietta ... ..	36	111	25	37	2,133	7,696	—	5	2,194	7,840
Benha ... ..	46	77	133	11	2,436	2,961	252	479	2,867	3,528
Shebin el Kom ... ..	88	75	70	19	4,670	7,729	13	76	4,841	7,899
Menouf ... ..	36	38	15	3	1,963	4,693	—	90	2,014	4,824
Tanta ... ..	241	472	120	113	4,783	5,657	27	68	5,171	6,310
Mehalla el Kobra ... ..	111	130	43	38	4,009	3,829	105	212	4,268	4,209
Kafr el Zayat ... ..	81	115	29	25	2,556	2,682	—	82	2,666	2,904
Zagazig ... ..	103	97	81	23	3,660	3,301	8	—	3,858	3,421
Faccus ... ..	81	242	7	26	2,037	2,387	1	82	2,156	2,737
Mansoura ... ..	142	212	62	9	2,861	4,005	150	1,055	3,215	5,281
Mit Ghamr ... ..	98	210	7	—	2,990	3,982	20	6	3,115	4,198
Damanhour ... ..	118	124	142	170	3,826	6,248	—	—	4,086	6,542
Kafr el Dawar ... ..	32	50	12	16	681	1,802	7	2	732	1,870
Giza ... ..	105	64	56	6	956	2,212	26	463	1,143	2,745
Fayoum ... ..	100	—	300	202	1,425	2,006	—	—	1,825	2,372
Sennuris ... ..	82	110	9	11	1,362	4,303	1	31	1,454	4,455
Beni Suef ... ..	81	83	88	64	3,490	3,930	2	8	3,661	4,085
Minia ... ..	97	115	49	20	2,130	3,467	—	218	2,276	3,829
Samalout ... ..	68	97	10	16	779	779	—	6	857	918
Assiut ... ..	184	350	100	2	2,280	3,349	4	33	2,568	3,734
Deirout ... ..	27	53	6	—	2,119	2,678	60	72	2,212	2,893
Gerga ... ..	145	166	26	20	4,163	9,278	—	14	4,344	9,478
Tahta ... ..	233	420	4	13	1,261	3,016	3	78	1,591	3,537
Suhag ... ..	156	259	22	—	1,397	1,551	—	—	1,575	1,810
Gena ... ..	125	245	25	5	1,575	2,504	—	—	1,725	2,754
Nag Hammadi ... ..	148	303	18	51	752	1,136	1	21	919	1,511
Iaxer ... ..	95	130	47	5	852	1,563	4	17	908	1,724
Aswan ... ..	87	132	90	32	847	1,173	17	84	1,04	1,426
TOTAL ... ..	4,466	5,821	4,444	2,915	83,378	143,362	924	4,456	93,446	159,672



AND VENEREAL DISEASES CLINICS DURING THE YEAR 1949

NUMBER OF VISITS

Syphilis		Gonorrhoea		Skin Dis.		Other Dis.		TOTAL	
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
4,881	7,024	718	1,419	1,985	4,365	11	126	7,595	12,934
4,893	5,018	1,147	2,961	1,700	3,728	344	477	8,084	12,184
9,297	8,087	1,487	3,299	870	1,280	219	260	11,873	12,926
3,015	3,375	272	2,427	676	1,126	10	—	3,973	6,929
976	1,287	137	2,764	327	1,075	—	3	1,440	5,129
1,315	1,980	46	1,985	541	1,465	—	40	1,902	5,470
1,687	291	138	1,994	1093	1,287	—	—	2,918	3,572
1,848	4,344	368	1,637	920	1,248	4	—	3,140	7,229
456	2,473	108	2,505	573	1,185	—	—	1,137	6,163
1,210	4,194	402	1,592	1,300	2,191	26	47	2,938	8,024
3,952	4,161	781	910	1,627	3,104	129	3,858	6,489	12,033
1,786	4,929	125	381	609	1,541	—	—	2,511	6,851
583	1,260	320	294	284	421	160	255	1,347	2,230
2,085	2,677	512	1,309	1091	1,791	—	—	3,688	5,777
1,648	2,338	114	1,702	1,232	2,376	—	—	2,994	6,616
6,932	13,238	478	1,957	1,952	2,438	—	1	9,362	17,634
4,964	6,271	369	1,351	2125	1,672	80	64	7,538	9,358
2,187	2,567	76	580	928	1,563	—	2	4,211	4,712
1,555	2,680	111	41	1,352	1,096	4	—	3,022	3,817
1,648	7,358	19	392	1,604	2,268	—	83	3,271	10,101
3,373	6,123	300	57	372	542	159	2,317	4,204	9,093
2,522	5,716	20	6	1,144	1,287	—	—	3,686	7,009
2,173	2,378	246	363	1400	1,745	—	—	3,819	4,486
511	992	3	14	166	298	—	—	680	1,304
3,068	4,284	106	3,142	344	668	—	—	3,518	8,094
3,153	7,867	506	410	156	218	—	—	3,815	8,495
1,259	3,322	9	21	841	2,448	2	242	2,111	6,033
2,305	3,397	283	893	1,414	2,032	19	40	4,021	6,362
3,593	4,241	299	845	1,004	1,469	—	—	4,896	7,155
2,322	4,681	23	90	280	301	—	—	2,625	5,072
5,137	11,497	112	153	1,343	1,858	—	12	6,592	13,520
1,371	3,014	6	—	948	1,079	194	251	2,519	4,344
2,793	4,420	87	131	1,165	2,419	—	—	4,045	6,970
3,343	7,734	10	925	86	117	5	38	3,444	8,864
5,529	9,410	25	—	461	433	—	—	6,015	9,843
2,397	7,495	82	38	275	599	—	—	2,754	8,132
3,134	8,968	66	541	218	219	—	—	3,418	9,728
3,632	8,331	247	477	501	1,313	—	2	4,380	10,123
2,849	6,662	200	591	294	511	—	—	3,343	7,764
<b>111,382</b>	<b>196,735</b>	<b>10,378</b>	<b>40,397</b>	<b>36,192</b>	<b>56,776</b>	<b>1,366</b>	<b>8,118</b>	<b>159,318</b>	<b>302,026</b>



TABLE No. 71.—NEW CASES OF GONORRHOEA IN VENEREAL DISEASES  
CLINICS DURING THE YEAR 1947

Locality of Clinic	Acute		Chronic		TOTAL	
	M.	F.	M.	F.	M.	F.
Sayed Zeinab ... ..	432	25	33	130	465	155
Shubra ... ..	473	226	173	179	646	405
Gamalia ... ..	821	482	13	32	834	514
Abbassia ... ..	189	158	25	128	214	286
Old Cairo ... ..	29	100	26	20	55	120
Khalifa ... ..	43	8	33	201	76	209
Heliopolis ... ..	91	3	2	—	93	3
Port-Said ... ..	80	33	—	6	80	39
Port-Said Health Centre ... ..	14	43	—	6	14	49
Ismailia ... ..	62	—	25	26	87	26
Suez ... ..	265	72	19	—	284	72
Damietta ... ..	10	14	15	23	25	37
Benha ... ..	131	10	2	1	133	11
Shebin el Kom ... ..	52	15	18	4	70	19
Menouf ... ..	10	—	5	3	15	3
Tanta ... ..	75	17	45	96	120	113
Mehalla el Kobra ... ..	42	35	1	3	43	38
Kafr el Zayat ... ..	19	10	10	15	29	25
Zagazig ... ..	78	19	3	4	81	23
Faccus ... ..	7	5	—	21	7	26
Mansoura ... ..	60	4	2	5	62	9
Mit Ghamr ... ..	6	—	1	—	7	—
Damanhour ... ..	109	98	33	72	142	170
Kafr el Dawar ... ..	3	3	9	13	12	16
Giza ... ..	45	4	11	2	56	6
Fayoum ... ..	173	109	127	93	300	202
Sennuris ... ..	9	11	—	—	9	11
Beni Suef ... ..	53	10	35	54	88	64
Minia ... ..	38	5	11	15	49	20
Samalut ... ..	8	5	2	11	10	16
Assiut ... ..	100	2	—	—	100	2
Deirout ... ..	5	—	1	—	6	—
Gerga ... ..	25	16	1	4	26	20
Tahta ... ..	4	6	—	7	4	13
Suhag ... ..	22	—	—	—	22	—
Qena ... ..	20	4	5	1	25	5
Naga Hammadi ... ..	10	27	8	24	18	51
Luxor ... ..	38	—	9	5	47	5
Aswan ... ..	80	4	10	28	90	32
<b>TOTAL ... ..</b>	<b>3,731</b>	<b>1,5</b>	<b>713</b>	<b>1,232</b>	<b>4,444</b>	<b>2,815</b>

TABLE NO. 72.—CURED CASES IN VENEREAL DISEASES CLINICS DURING THE YEAR 1949

Locality of Clinic	Cured Cases		Cured Cases	
	Syphilis		Gonorrhoea	
	M.	F.	M.	F.
Sayed Zeinab ... ..	11	14	359	142
Shoubra ... ..	10	13	793	998
Gamalia ... ..	88	58	808	682
Abbassia ... ..	2	1	144	249
Old Cairo ... ..	—	—	21	60
Khalifa ... ..	—	—	43	108
Heliopolis ... ..	—	—	73	31
Port-Said ... ..	—	1	37	31
Port Said Health Centre ... ..	1	2	4	49
Ismailia ... ..	—	—	76	280
Suez ... ..	2	12	168	53
Damietta ... ..	10	30	23	25
Benha ... ..	—	—	113	51
Shebin el Kom ... ..	—	—	33	18
Menouf ... ..	—	—	2	—
Tanta ... ..	—	—	64	31
Mehalla el Kobra ... ..	1	—	5	42
Kafr el Zayat ... ..	3	5	8	28
Zagazig ... ..	3	10	36	14
Faccus... ..	1	2	10	82
Mansoura ... ..	16	27	45	2
Mit Ghamr... ..	—	3	2	—
Damanhour ... ..	1	3	63	49
Kafr el Dawar ... ..	—	—	7	4
Giza ... ..	6	4	52	5
Fayoum ... ..	1	8	84	62
Sennuris ... ..	—	4	5	10
Beni Suef ... ..	1	4	33	36
Minia ... ..	62	52	40	14
Samalut ... ..	—	—	8	8
Assiut ... ..	—	—	97	7
Deirout ... ..	—	1	8	—
Gerga ... ..	22	27	14	20
Tahta ... ..	4	17	6	65
Suhag ... ..	—	4	20	—
Qena ... ..	3	—	5	3
Nag Hammadi ... ..	—	—	3	2
Luxor ... ..	—	—	25	39
Aswan ... ..	1	—	87	31
<b>TOTAL ... ..</b>	<b>249</b>	<b>302</b>	<b>3,419</b>	<b>3,331</b>

TABLE NO. 73.—NEW CASES OF SCABIES DURING THE YEAR 1949

Locality of Clinic	New Scabies	
	M.	F.
Sayeda Zeinab ... ..	316	391
Shubra ... ..	802	2,330
Gamalia ... ..	363	253
Abbassia ... ..	484	432
Old Cairo ... ..	148	185
Khalifa ... ..	181	767
Heliopolis ... ..	145	260
Port-Said ... ..	626	916
Port Said Health Centre ... ..	388	364
Ismailia ... ..	220	269
Suez ... ..	218	331
Damietta ... ..	496	1,384
Benha ... ..	763	716
Shebin el Kom ... ..	1,966	1,875
Menouf ... ..	256	592
Tanta ... ..	667	451
Mehalla el Kobra ... ..	1,442	1,468
Kafr el Zayat ... ..	677	624
Zagazig ... ..	1,509	1,288
Faccus ... ..	898	786
Mansoura ... ..	655	1,047
Mit Ghamr... ..	1,065	1,248
Damanhour ... ..	1,560	1,763
Kafr el Dawar ... ..	231	423
Giza ... ..	148	284
Fayoum ... ..	241	345
Sennuris ... ..	290	343
Beni Suef ... ..	569	470
Minia ... ..	223	274
Samalut ... ..	156	117
Assiut ... ..	765	980
Deirout ... ..	400	355
Gerga ... ..	361	230
Tahta ... ..	265	249
Suhag ... ..	185	110
Qena ... ..	195	151
Nag Hammadi ... ..	131	146
Luxor ... ..	196	394
Aswan ... ..	126	125
TOTAL ... ..	20,427	24,736



TABLE NO. 74.—NEW CASES AND NUMBER OF VISITS TO MOBILE  
UNITS DURING THE YEAR 1949

Units	New Cases		Number of Visits	
	M.	F.	M.	F.
Ibrahimia ... ..	1,221	1,473	511	770
Saft el Khamar ..	257	183	108	76
<b>TOTAL ... ..</b>	<b>1,478</b>	<b>1,656</b>	<b>619</b>	<b>846</b>

FULL DETAILS

Units	Scabies				Other Skin Diseases	
	New Cases		Cured Cases			
	M.	F.	M.	F.	M.	F.
Ibrahimia ... ..	507	439	465	419	714	1,034
Saft el Khamar ...	87	72	47	49	170	101
TOTAL ... ..	594	511	512	468	884	1,145

TABLE NO. 75.—NEW CASES AND VISITS  
TO SCABIES TREATMENT BATH-HOUSE  
DURING THE YEAR 1949.

New Cases		Number of Visits	
M.	F.	M.	F.
3,179	2,007	6,597	3,873

HOSPITALS AND CLINICS FROM WHICH PATIENTS  
WERE REFERRED DURING THE YEAR 1949.

District	Patients	
	M.	F.
Shubra Clinic ... ..	1,589	1,731
Sayed el Zeinab Clinic ...	3	3
Gamalia „ ...	165	48
Giza „ ...	86	39
Old Cairo „ ...	54	25
Abbassia „ ...	4	—
Bulaq Health Centre ...	225	126
Bab el Shâaria „ ...	4	2
Demerdash Hospital... ..	3	1
Malek „ ... ..	12	1
Kasr el Aini „ ... ..	—	—
School Hygiene Dept. ...	39	13
Other Units ... ..	995	18
TOTAL ... ..	3,179	2,007

## Chapter X—MENTAL DISEASES

The Ministry is pleased to record some progressive measures taken during the year towards the treatment and welfare of mental cases. An out-patient department, for the treatment of psychoneurotics and early psychotic cases was established in a general hospital, the King's Hospital, situated in the centre of Cairo, and was opened by the Minister of Public Health on March 17th. The need for such a department was at once so readily shown by the public that the establishment of another became necessary and was actually opened before the end of the year at another general hospital, the Boulac Hospital. Both departments are run by psychiatrists from the two government mental hospitals assisted by social workers.

For the first time insulin treatment was started at the Abbassia Hospital during the year and would have been further extended but for the shortage of doctors.

A social worker was attached to the Department for the first time in its history and took charge of his office in the beginning of April. He soon directed his attention to welfare measures for the benefit of the patients. On June 7 and 8, August 8, September 13 and 18 and October 9 and 10, cinema films were shown at the two hospitals, while on June 25 and 26 two shows of the Popular Troup of the Ministry of Social Affairs were made.

### *Accommodation, Admissions and Discharges :*

No new buildings have been erected as yet, though the Ministry has agreed in principle to a new project for enlarging the Khanka Hospital and dividing it into two separate hospitals, one for the criminal cases and the other for ordinary patients and will include female wards. As the accommodation still remains at 3,334 beds in the two present hospitals, the overcrowding became more accentuated during the year. The number of patients remaining in residence on December 31, 1948 was 5,194, the admissions during the year under review numbered 3,410, and those discharged or dead numbered 3,121, thus leaving 5,483 in residence at the end of the year, which is an increase of 287 patients compared with the previous year and of 2,149 patients over and above the normal number of beds.

### *Accused Persons Suspected of Insanity :*

During the year, 186 persons were sent by the Procurer General for examination and report. Of these 58 were accused of crimes of violence and 42 accused of theft. The Parquet also asked for reports on 71 persons who were admitted as ordinary patients. Thus the number of reports sent to the Parquet totalled 257.

### *Ages of Persons Admitted :*

Ages of patients ranged between 10 and 90 years.

### *Religions and Nationalities of Patients :*

Moslems, Christians, Jews and of unknown religions were admitted to both hospitals. Besides Egyptians, admissions included Europeans and Near Easterners.

### *Occupation of Male Patients :*

These included mainly farmers, sailors, artisans, students and servants of religion, unemployed, clerks and Government employees.

### *Residence of Patients :*

Patients from all Provinces and Governorates of the Egyptian Kingdom were admitted to both hospitals.



*Physical Condition on Admission :*

The ratio in both hospitals was as follows :

	Khanka %	Abbassia %
Fair ... ..	46.6	62.12
Poor ... ..	7.2	32.93
Very poor or moribund ... ..	46.2	4.95

*Wassermann Tests :*

3,157 specimens of blood and 69 specimens of cerebro-spinal fluid were sent to the Laboratories of the Ministry of Public Health for examination and gave various results.

*Scabies :*

238 cases of scabies were treated locally in Abbassia Hospital.

*Accused Patients and Prisoners in Residence.*

Patients accused in crimes numbered 857.

*Deaths :*

The patients who died during their stay in the two hospitals numbered 377. The ratio of deaths compared with the total cases treated is 4.4 per cent as against 4.3 per cent in 1948.

*Ophthalmic and Dental Clinics.*

The work in both clinics continued for the benefit of the patients. 679 cases were treated.

*Electric Shock and Cardiazol Treatment.*

Treatment by both methods continued on a larger scale. Cases of schizophrenia, manic-depressive, confusional psychosis and anxiety neuroses were treated giving results varying between recovery, marked improvement, slight improvement and no improvement.

*Accidents :*

67 major and 1,877 minor accidents took place in both hospitals. One suicide occurred in Abbassia.

*Artificial Feeding :*

This was carried out 16,828 times without accidents.

*Epileptic Fits :*

6,655 epileptic fits were recorded during the year.

*Physical Illnesses.*

10,026 cases were treated locally from physical ailments.

*Births :*

11 children were born in the female wards at Abbassia Hospital.

*Autopsies :*

80 post-mortem cases were made during the year.

*Pharmacy :*

38,500 prescriptions and 2,200 photos were prepared in the pharmacy of Abbassia Hospital and an almost similar number in Khanka.

*X-Ray Department :*

232 photos and 311 screenings were made in Abbassia Hospital.

*Central Medical Commission :*

88 patients in Abbassia were reported upon to the C.M.C. other than 30 in Khanka.

*Length of Residence :*

The length of residence ranged between one day and 40 years.

*Escapes :*

Of 2 patients escaped one from Abbassia and another from Khanka, one was recaptured and brought back to the hospital.

*Khanka Farm :*

The production of vegetables from the farm continued as usual so also its use as a means of occupational therapy to the patients.

## Chapter XI—PROPAGANDA AND SOCIAL HEALTH

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Every available propaganda means was utilised during the year in the control of seasonal outbreaks of infectious diseases, in diffusing health education and in raising the health standards of the population.

The Propaganda Section embarked this year on a new field, namely, extending social health services to the population.

The following are details of propaganda activities during the year :

*Health Films.*—A total of 119 copies have been reproduced from old health films for distribution to all propaganda units. These films dealt generally with the more important health problems confronting the nation among which may be mentioned malaria, bilharzia, typhoid fever, venereal diseases, tuberculosis, ophthalmias, gambiae, insects, nutrition and alcoholic drinks.

15 short films of 2–5 minutes duration have also been produced with a health advice underlying each film.

*Propaganda Vehicles.*—Having been equipped with propaganda films, apparatus and literature, these vehicles carried their work in the crowded communities according to a programme laid down by the Senior public health inspector of the province or governorate in the light of seasonal flares of infectious diseases and areas involved.

The following meetings were held during the year .

- 4,501 day time meetings.
- 3,019 evening meetings.
- 1,708 meetings in schools.
- 914 meetings in markets.
- 188 meetings during fairs.
- 465 meetings during cinemas.

*Broadcasting.*—As an important and effective propaganda organ, broadcasting has been used extensively this year. Lectures on health questions were broadcast weekly and on special events. A total of 68 lectures and eight theatrical representations were broadcast during the year.

*UNESCO Conference.*—Having been invited to join the Egyptian delegation to the UNESCO conference held at Beirut, the Section gave a display of all health propaganda methods in use in Egypt. A lecture explaining these methods was delivered to members of the conference.

*The Agricultural and Industrial Exhibition.*—Advantage was taken of this exhibition. A large number of public health exhibits were arrayed in the space allotted to the Ministry. It was well attended by visitors. Some 80,000 copies of health propaganda literature were distributed to visitors and health propaganda films were shown during 250 meetings.

*Co-operation with other Sections of the Ministry.*—Propaganda units helped other sections of the Ministry in promoting their respective activities. Thus tuberculosis, nutrition, endemic diseases, flies and malaria were each allotted a week during which propaganda was conducted on a large scale.

Medical officers of the different units were asked to lecture the public on current health problems using propaganda facilities within their areas. Some 1,430 lectures were delivered during the year.



At the request of the Quarantine Department, a propaganda vehicle was sent to Tor lazaret to conduct propaganda activities among returning pilgrims. 75 cinema shows, 88 morning meetings and 82 religious and health talks were given.

Propaganda units co-operated with the B.C.G. vaccination teams provided by the World Health Organization. The people were advised as to the benefits of vaccination and urged to profit by it. Two films, one produced locally and another translated into Arabic, were shown in cinemas for the purpose.

64 propaganda meetings were held for the entertainment of patients in general hospitals, sanatoria and leprosy colony.

#### *Co-operation with other Organizations :*

It has been arranged with the Preaching Administration of Al Azhar that preachers, would include health propaganda in their sermons, particularly during the spread of infectious diseases, health weeks and B.C.G. vaccination.

The Mosques Section of the Ministry of Waqfs asked Imams of mosques to include in their weekly sermons some health advice.

Arrangements were made with the School Hygiene Department of the Ministry of Education, the different administrations of the Ministry of Social Affairs, private institutions with social activities, factories and workmen corporations, for the diffusion of health education among their members.

#### *Social Health Services :*

A Social Health Services Office has been set up at Assiut, under the supervision of the Propaganda Section. Among its functions may be mentioned :

(i) Investigating living conditions of patients to facilitate their treatment and sustenance, to supply them with artificial limbs and drugs and to urge social institutions to provide homes for the accommodation of convalescents.

(ii) Studying child welfare problems and advising parents to profit by services rendered by child welfare centres.

(iii) Combating ophthalmias by visiting house wives in their homes and instructing them in methods of eye protection.

(iv) Studying the tuberculosis problem in rural areas. Catering for the patients and families socially and medically.

(v) Protection of the offspring through the control of venereal diseases. This is realised by demonstrating to the public the evils of these diseases, by advising the young to spend their leisure time in sports and by setting up an office for the medical examination of persons before marriage.

(vi) Combating narcotics and intoxicants by all means of publication and broadcasting.

(vii) Conducting researches and studies on nutrition in conjunction with the Nutrition Section.

(viii) Catering for patients during epidemics and advising the public to avail themselves of services rendered by public health units, bath-houses, hospitals, dispensaries, etc.

(ix) Conducting surveys and compiling data on various health problems.

(x) Raising the standards of rural areas through the aid of rural health and social units.

(xi) Directing the steps of private societies with health and social activities, towards serving the needs of the population.

(xii) Promoting propaganda activities to meet the needs of the districts, and providing health museums.

The equipment of the office was completed and work commenced during the year. This involved :

(i) The appointment of most of the staff, namely the M.O. i/c. of the Office. social workers and sanitary surveyors. A doctor and house visitors will shortly be appointed.

(ii) The office is provided with a museum containing a variety of health models and a hall for showing health films to the public.

(iii) A survey of the area has been completed and data regarding the various health problems collected prior to drawing up plans for operation.

(iv) Government and private bodies with social activities have been approached with a view to coordinating their efforts.

(v) Meetings for the entertainment of hospital patients have been organised by the office; and the social health and financial conditions of poor patients have been studied.

(vi) Arrangements have been made for setting up an office for the medical examination of persons before marriage.

(vii) Credits have been provided to meet expenditures incurred by the office.

## PART III — TREATMENT

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### Chapter XII — GENERAL HOSPITALS

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#### *Number of Hospitals :*

There were 90 general hospitals in operation this year. 29 of these were situated in governorates and chief towns of provinces and 56 in Bandar and District towns. The remaining five were out-patient dispensaries.

#### *Hospital Accommodation :*

The total number of hospital beds this year was 6,864 of which 5,729 were reserved for patients and 1,135 for the staff and pupil nurses.

#### *Treatment :*

Treatment was given this year to 104,732 in-patients and 2,286,893 out-patients.

#### *Operations :*

A total of 46,963 major operations were performed on in-patients and 76,947 minor operations on out-patients or a total of 123,910 operations as against 39,628, 73,604 and 113,232 respectively in the previous year.

#### *X-Ray Examinations :*

The number of cases examined and treated by X-Rays was 24,665 as against 27,248 in 1948.

#### *Deaths :*

A total of 4,258 deaths were recorded among the 104,732 in-patients or a death rate of 4.0 per cent as against 3.75 per cent in 1948.



TABLE NO. 76.—SHOWING GENERAL HOSPITALS IN OPERATION SINCE 1939

Year	Hospitals in Capitals of Provinces and Governorates	Hospitals in Chief towns of Districts	Village Hospitals	Hospitals in the Oases	Out-patient Clinics
1939 ... ..	20	48	62	—	3
1940 ... ..	20	51	62	—	3
1941 ... ..	20	52	—	—	3
1942 ... ..	20	52	—	—	4
1943 ... ..	26	52	—	—	3
1944 ... ..	27	53	—	—	2
1945 ... ..	27	53	—	6	2
1946 ... ..	28	61	—	6	2
1947 ... ..	28	56	—	—	4
1948 ... ..	28	56	—	—	5
1949 ... ..	29	56	—	—	5

TABLE NO. 77.—NUMBER OF BEDS IN GENERAL HOSPITALS

Year	Number of Beds	Remarks
1939 ... ..	6,979	
1940 ... ..	6,926	The Lock hospitals were detached from the Section.
1941 ... ..	6,969	The village hospitals were detached from the Section.
1942 ... ..	6,880	
1943 ... ..	6,363	Alexandria hospital was detached from the Ministry.
1944 ... ..	6,553	
1945 ... ..	6,663	
1946 ... ..	7,014	
1947 ... ..	6,879	The Oases and Demerdash hospitals were detached from the Section.
1948 ... ..	7,171	
1949 ... ..	6,864	Helmiyet-El-Zeitoun hospital was converted into a military hospital.

TABLE No. 78.—DISTRIBUTION OF BEDS

Hospital	1st Class	2nd Class	3rd Class Paying	3rd Class Ordinary	Children	Ophth.	Total beds of patients	Staff Beds	Total No. of Beds
King's ... ..	—	—	—	285	9	—	294	106	400
Helmiyet el Zeitoun ... ..	This hospital was converted into a military hospital								
Boulaq... ..	—	—	—	32	—	6	38	31	69
Bab-El -Shaaria ... ..	—	—	—	51	—	6	63	25	88
Incurable Diseases Helwan ... ..	—	—	—	135	—	—	135	94	229
Port-Said ... ..	2	2	16	248	14	—	282	38	320
Suez ... ..	8	15	—	164	—	25	212	31	243
Damietta ... ..	—	2	—	125	—	—	127	13	140
Damanhour ... ..	—	4	—	89	5	—	98	15	113
Tanta ... ..	—	4	—	218	2	—	224	88	312
Mansoura ... ..	—	—	—	142	10	—	202	27	229
Mit Ghamr... ..	—	—	—	45	—	12	57	11	68
Zagazig ... ..	1	3	—	208	12	—	224	16	240
Shebin el Kom ... ..	—	—	—	89	—	—	89	9	98
Benha ... ..	—	—	—	69	—	—	69	10	79
Kaliub ... ..	—	—	—	89	—	—	89	4	93
Fayoum ... ..	—	1	—	92	4	—	97	8	105
Beni-Suef ... ..	—	—	—	114	—	—	114	8	122
Minia ... ..	—	1	—	81	8	—	90	37	127
El-Fikria ... ..	—	—	—	28	—	13	41	8	49
Maghagha ... ..	—	—	—	—	—	—	—	—	—
Assiut ... ..	—	4	—	189	11	—	204	18	222
Mallawi ... ..	—	—	—	28	—	11	39	4	43
Souhag ... ..	—	2	—	103	—	—	105	26	131
Tahta ... ..	—	—	—	33	—	—	33	4	37
Qena ... ..	—	—	—	13	—	—	73	12	85
Luxor ... ..	5	7	—	76	—	25	113	15	128
Esna ... ..	—	—	—	68	—	23	91	14	105
Aswan ... ..	1	2	—	48	—	25	76	3	79
Shoubra El-Khema ... ..	—	—	—	22	—	—	22	3	25
Ismailia ... ..	—	2	—	86	—	12	100	16	116
Delingat ... ..	—	—	—	30	—	12	42	6	48
Kafr el Dawar ... ..	—	—	—	68	—	8	76	11	87
Rosetta ... ..	—	—	—	29	—	12	41	8	49
Shubrakheet ... ..	—	—	—	28	—	12	40	8	48
Edfeena ... ..	—	—	—	47	—	—	44	6	50
Kom Hamada ... ..	—	—	—	29	—	11	40	9	49
Mahmoudia ... ..	—	—	—	21	—	—	21	2	23
Abou Homos ... ..	—	—	—	27	—	—	27	6	33
Desouk ... ..	—	—	—	35	—	15	50	9	59
Mehalla el Kobra ... ..	—	—	—	114	—	—	114	13	127
Samanoud ... ..	—	—	—	38	—	8	46	7	53
Tayeba ... ..	—	—	—	39	—	15	54	8	62
Sherbin ... ..	—	—	—	31	—	12	43	9	52
Zifta ... ..	—	—	—	45	—	—	45	11	56
Kafr El Sheikh... ..	—	2	—	60	—	—	62	7	69
Fowa ... ..	—	—	—	34	—	8	42	6	48
Kafr El-Zayat ... ..	—	—	—	32	—	8	40	10	50
Absheet ... ..	—	—	—	—	—	—	—	—	—
Biala ... ..	—	—	—	—	—	—	—	—	—
Faraskour ... ..	—	—	—	31	—	8	39	7	46
Sinbellawein ... ..	—	—	—	22	—	12	34	8	42
Manzala ... ..	—	—	—	35	—	—	35	9	44
Aga ... ..	—	—	—	44	—	8	52	7	59
Dikernes ... ..	—	—	—	66	—	12	78	11	89
Belbeis ... ..	—	—	—	24	—	12	36	14	50
Faccous ... ..	—	—	—	33	—	12	45	11	56
Minia El Kamh ... ..	—	—	—	32	—	8	40	9	49
Inshas... ..	—	—	—	31	—	19	50	11	61
Teftish El Wadi ... ..	—	—	—	—	—	—	—	—	—
Tala ... ..	—	—	—	29	—	11	40	10	50
Ashmoun ... ..	—	—	—	52	—	12	64	8	72

TABLE NO. 78. DISTRIBUTION OF BEDS (Contd.)

Hospital	1st Class	2nd Class	3rd Class Paying	3rd Class Ordinary	Children	Ophth.	Total beds of patients	Staff Beds	Total No. of Beds
Menouf ... ..	—	—	—	60	—	16	76	11	87
Zawiet el Naoura ... ..	—	—	—	33	—	14	47	9	56
Shebin el Kanater ... ..	—	—	—	27	—	12	39	10	49
Saff ... ..	—	—	—	31	—	12	43	7	50
Ayat ... ..	—	—	—	49	—	16	65	10	75
Itsa ... ..	—	—	—	32	—	11	43	9	52
Wasta ... ..	—	—	—	25	—	12	37	9	46
Beba ... ..	—	—	—	35	—	12	47	10	57
Beni Mazar ... ..	—	—	—	40	—	8	48	13	61
Fashn ... ..	—	—	—	29	—	12	41	9	50
Samalout ... ..	—	—	—	68	—	—	68	8	76
Deirout ... ..	—	—	—	30	—	12	42	10	52
Badari ... ..	—	—	—	21	—	10	31	6	37
Sahil Selim ... ..	—	—	—	25	—	8	33	12	45
Manfalout ... ..	—	—	—	35	—	—	35	5	40
Mataana ... ..	—	—	—	—	—	—	—	—	—
Abou Tig ... ..	—	—	—	35	—	8	43	8	51
Akhmim ... ..	—	—	—	25	—	12	37	8	45
Baliana ... ..	—	—	—	24	—	12	36	7	43
Gerga ... ..	—	—	—	50	—	12	62	9	71
Dishna... ..	—	—	—	25	—	8	33	9	42
Kous ... ..	—	—	—	39	—	12	51	7	58
Nag Hamadi ... ..	—	—	—	28	—	14	42	9	51
Kom Ombo ... ..	—	—	—	25	—	—	25	4	29
Eneiba ... ..	—	—	—	11	—	—	11	1	12
Dahabiet el Dirr ... ..	—	—	—	—	—	—	—	—	—
<b>TOTAL ... ..</b>	<b>17</b>	<b>51</b>	<b>16</b>	<b>4,930</b>	<b>75</b>	<b>640</b>	<b>5,729</b>	<b>1,135</b>	<b>6,864</b>

*Treatment :*

The following table No. 79. shows the number of patients treated in the hospitals,

TABLE NO. 79.

Year	No. of In-Patients	No. of Out-Patients	No. of attendance to out-patients section
<b>1945</b> ... ..	96,663	1,850,888	3,495,322
<b>1946</b> ... ..	103,496	2,285,035	3,920,413
<b>1947</b> ... ..	92,699	1,952,519	3,363,931
<b>1948</b> ... ..	99,092	2,165,007	3,520,316
<b>1949</b> ... ..	104,732	2,286,893	4,098,140



*Operations and X. Ray Examinations:*

The following table No. 80 shows the number of operations and X—Ray examinations performed in the hospitals during the last 5 years.

TABLE No. 80.

Year	In-patients Operations	Out-patients Operations	TOTAL	X. Ray Examinations.
1945 ... ..	37,730	76,447	114,177	28,565
1946 ... ..	40,454	79,977	120,431	29,309
1947 ... ..	39,346	74,326	113,672	25,304
1948 ... ..	39,628	73,604	113,232	27,248
1949 ... ..	46,963	76,947	129,910	24,665

*Deaths :*

The following table No. 81 shows the number of in-patients treated in the hospitals during the last five years and the number of deaths and death-rates in each year

TABLE No. 81.

Year	No. of in-patients	No. of Deaths	Death-rates per cent
1945 ... ..	96,663	4,570	4.72
1946 ... ..	103,496	3,453	3.3
1947 ... ..	92,699	4,693	5.06
1948 ... ..	99,092	3,723	3.75
1949 ... ..	104,732	4,258	4.06

*Venereal Diseases :*

The following table No. 82 shows the number of prostitutes treated in the General and District hospitals during the year 1949.

TABLE No. 82.

Gonorrhoea	Syphilis	Other Diseases	TOTAL
2	71	—	73

The following table No. 83 shows the total number of patients treated for venereal diseases in the General and District hospitals during the year 1949.

TABLE No. 83.

In-patient Sections			Out-patient Sections		
Gonorrhoea	Syphilis	Total	Gonorrhoea	Syphilis	TOTAL
6	185	191	895	5,851	6,746

## Chapter XIII—OPHTHALMIC HOSPITALS

### *New Units :*

Credits have been granted in this year's budget for ophthalmic branches at Inshas, Abul Matamir, Teh el Baroud and extension of ophthalmic treatment at Mallawi.

### *Clinical work :*

The following table No. 84 gives a summary of the clinical work carried out during the year 1949 as compared with that of the year 1948 :—

TABLE No. 84

	1949	1948
New patients ... ..	1,208,209	1,282,154
In-patients ... ..	33,572	30,721
Out-patients ... ..	5,564,944	3,724,100
Operations ... ..	220,806	206,277
Out-patient attendances	6,806,942	6,774,156

Cases of blindness including cataract cases totalled 15,775 or 2.79 per cent of total patients examined. Excluding cataract cases, these numbered 11,642 or 2.04 per cent.

### *Other services :*

(1) Ophthalmologists pay regular visits to the following institutions and hospitals for the treatment of eye diseases among their inmates :—

Leprosy hospitals at Abu Zaabal and Siyoufia —Mental Hospitals at Abbassia and Khanka — Children Preventoria at Giza and Zeitoun — Fever hospitals at Abbassia and Embaba, Convalescents Home and Children preventorium at Marg.

(2) Ophthalmologists are detailed from time to time to visit Arish, Tor, and the Oases for the examination and treatment of the inhabitants. During pilgrimage, an ophthalmologist accompanies the medical mission sent to the Hedjaz to treat pilgrims.

(3) Medical officers of other ministries desiring to gain experience in ophthalmic treatment technique are accepted in ophthalmic hospitals for the purpose.

(4) Medical officers with practical training in ophthalmic treatment technique are provided to ophthalmic units of other ministries and departments.

(5) Ophthalmic units instruct and train assistant midwives and health visitors of rural health centres in ophthalmic treatment.

### *Corneal Grafting (Keratoplasty) :*

Ophthalmic units began in 1949 to perform corneal grafting operations. Certain ophthalmic hospitals have been provided with the most modern instruments as well as refrigerators for the purpose.

At the invitation of Cairo University, Prof. Fieji arrived in Egypt, delivered some lectures and performed a number of operations at Kasr el Aini Hospital which were attended by medical officers of the ophthalmic section. Profiting by his experience, the medical officers began to perform these operations in the ophthalmic hospitals. A number of operations have already been performed but it is still in the experimental stage.

*Nursing in Ophthalmic Hospitals :*

The substitution of Bashtamurgis (chief male attendants) by nurses continues in ophthalmic hospitals according to available budget credits. It is proposed to introduce this arrangement into all units.

*Accommodation :*

The number of beds in all ophthalmic units was 2,342. Where space permits in in-patient departments in ophthalmic hospitals, more beds are added. 87 more beds have been approved in this year's budget.

*Post Graduate Course :*

Fresh medical officers desiring to join the ophthalmic service are sent to the Faculty of Medicine of Cairo University to attend a post graduate course in ophthalmology.

*Ophthalmic Library :*

There is a circulating ophthalmic library with headquarters at Rod el Farag Ophthalmic Hospital for the benefit of medical officers in ophthalmic units. It is kept provided with old and new ophthalmic literature which is placed at the disposal of medical officers to keep them acquainted with recent advances and new developments in the ophthalmic field. Important books and references indispensable to junior medical officers are kept in several copies to facilitate their frequent circulation.

*Modern apparatus for ophthalmic hospitals :*

Ophthalmic units are kept provided with up-to-date apparatus and instruments.



## Chapter XIV—PHARMACIES

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### *Private Pharmacies :*

52 permits for new private pharmacies were granted this year by the Ministry. Authority was given for the transfer of ownership of 19 pharmacies partly owned by non pharmacists, to qualified pharmacists.

### *Night Service Pharmacies :*

There were four night service pharmacies in operation in Cairo this year as against three in the previous year. The prescriptions dispensed totalled 14,521 not including patented preparations which were dispensed without prescriptions.

### *Agents :*

Ten permits for agents having depots and 6 without depots were granted during the year.

### *Registration of Egyptian Specialities:*

75 permits were granted for the preparation of Egyptian specialities bringing the number of registered specialities to 1,655. Ten specialities were refused registration.

### *Pharmaceutical Laboratories :*

One new pharmaceutical laboratory was authorised this year and three closed down in Cairo.

### *Application of the Law :*

Of 522 contraventions drawn up, 93 were for trading in or being in possession of poisonous substances and drugs without authorisation, three for practising pharmacy without licence and 99 against pharmacists and assistant pharmacists for violating the law.

### *Schedule 1 and 2 Poisonous Drug Stores :*

Four permits for poisonous drug stores were granted this year, two in Cairo, one in Zagazig and one in Dakahlia.

### *Schedule IV Drug Stores :*

28 permits were granted this year : 18 in Cairo, 5 in Alexandria, 2 in Gharbia, one in Menoufia, one in Behera and one in Damietta.

### *Schedule V Drug Stores :*

Three permits were granted in Cairo this year, one of which has since been cancelled.

### *Schedule II Drug Stores :*

12 permits were granted this year: 3 in Gharbia, two in Menoufia, 2 in Behera and one in each of Dakahlia, Suez, Sharkia, Fouadieh and Arish.

TABLE No. 85.—QUANTITIES OF STUPEFACIENTS IMPORTED INTO EGYPT  
AND EXPORTED THEREFROM DURING THE YEAR 1949

Name of drug	Quantity importd		Quantity exported	
	Kgs.	Grams.	Kgs.	Grams.
Opium and its preparations ... ..	76	730	—	—
Morphine and its salts ... ..	2	230	—	—
Cocaine and its salts ... ..	—	996	—	—

TABLE No 86.—QUANTITIES OF STUPEFACIENTS CONFISCATED  
FOR ILLICIT IMPORT OR EXPORT.

Name of drug	Tons	Kgs.	Grams.
Opium ... ..	6	118	—
Cannabis Indica ... ..	14	983	—
Heroinc ... ..	—	4	—
Cocaine ... ..	—	—	361

TABLE No. 87.—QUANTITIES OF STUPEFACIENTS CONSUMED  
FOR MEDICAL PURPOSES.

Name of drug	Kgs.	Grams.
Opium and its preparations ... ..	80	430
Morphine and its salts ... ..	2	810
Cocaine and its salts ... ..	—	996

## Chapter XV.—UNIVERSITIES HOSPITALS

### MANIAL HOSPITAL, CAIRO

#### *Bedding Accommodation :*

Eleven beds have been provided in the Radiography Section bringing the total number of beds to 1,449 as against 1,438 in the previous year.

#### *In-patients :*

A total of 20,429 in-patients were admitted to the various departments of the hospital during the year or 4,723 more in-patients than the previous year. This increase is due to the re-opening for treatment of the sections which were closed on the outbreak of the cholera epidemic.

Of this number, 15,982 were discharged as cured, improved or at their own request. 3,185 were transferred to the out-patients department for further treatment, 244 were referred to other hospitals and 718 died. The death rate was 3.5 per cent as compared with 4.02 per cent in 1948.

#### *Out-patients :*

The new and old out-patients totalled 899,929 as against 658,797 in the previous year or 241,132 more out-patients. Of this number, 338,202 were new and 561,727 old as against 206,977 and 451,820 respectively in 1948.

#### *Diagnosis of in-patient medical diseases :*

Diagnosis of medical diseases treated within the in-patient departments of the hospital fall under ten principal headings namely :

- (1) Respiratory system diseases numbered 2,197 (1,677 males and 520 females).
- (2) Digestive system diseases numbered 1,807 (1,177 males and 630 females).
- (3) Diseases of the cardio vascular system numbered 3,062 (1,915 males and 1,147 females).
- (4) Diseases of the uro-genital organs numbered 747 (594 males and 153 females)
- (5) Diseases of the central nervous system numbered 1,433 (1,037 males and 396 females).
- (6) Diseases of blood, lymphatics and spleen numbered 810 (609 males and 201 females).
- (7) Diseases of the metabolism and endocrine glands numbered 525 (335 males and 190 females).
- (8) Diseases of the joints and bones numbered 386 (214 males and 172 females)
- (9) Infectious diseases and fevers numbered 133 (80 males and 53 females).
- (10) Miscellaneous diseases numbered 219 (142 males and 77 females).

#### *Kasr el Aini Hospital :*

The number of beds this year was 1,250 as compared with 1,237 in the previous year, i.e. 13 beds more. A 2-bed centre for blood transfusion and another for urgent casualty cases have been provided this year.

During the year under review, a total of 21,348 patients were admitted to the hospital as compared with 15,747 in 1948, or an increase of 5,601 patients. Again this increase is due to the re-opening of sections following the extermination of the cholera epidemic.



### *Casualty Cases :*

Of a total of 5,159 cases admitted to Kasr el Aini Hospital during the year, 4,575 were discharged as cured and 599 died as compared with 3,269 admissions, 2,786 cured and 376 deaths during 1948.

Falls whether from height, stairs or slipping over accounted for 1,432 cases, then come motor accidents accounting for 868 cases and scalds accounting for 690 cases.

Discharges during the year totalled 21,230 as compared with 16,391 in the previous year. Of this number, 12,230 were discharged cured, 7,580 were referred to the out-patients department or other hospitals for further treatment and 1,056 died or a death rate of 5 per cent.

Surgical cases treated during the year numbered 18,017 (13,274 males and 4,743 females).

For further details please refer to the Annual Statistical Report of the Universities Hospitals Department.

### ALEXANDRIA UNIVERSITY HOSPITALS

#### *Accommodation :*

Only 14 beds were increased making a total of 615 beds.

#### *In-patients :*

The total number of in-patients treated during the year was 17,705 (10,272 males with 1,150 children and 7,433 females with 968 children) or 731 in-patients over last year.

The surgical department was the most congested with a total of 7,405 patients. Added to the 1,345 orthopaedic patients, this gives a total of 8,750 patients or almost half the total number of patients. Medical diseases come next with 3,874 patients, then follow gynaecological and obstetric diseases with 2,830 patients and venereal and skin diseases with 945 patients.

1,169 deaths were recorded during the year or a ratio of 7.3 per cent of total discharges.

Diagnosis of 5,361 medical diseases cases revealed that respiratory system diseases accounted for 560 cases ; digestive system diseases for 698 cases, cardio vascular system diseases for 1,543 cases; urogenital system diseases for 155 cases, central nervous system diseases for 609 cases ; diseases of the blood, lymphatics and the spleen for 327 cases, diseases of metabolism and endocrine glands for 318 cases ; diseases of the bones and joints for 260 cases, infectious diseases, and fevers for 59 cases and other sundry diseases for 414 cases.

According to diagnosis of 8,095 surgical cases, there were 484 cases of pyogenic infections and infected wounds, 277 cases of burns and scalds, 720 cases of wounds, 1,222 cases of fractures, 412 cases of affections of the scalp and cranium, 349 cases of affections of the brain and meninges, 1,205 cases of affections of the intestines, 473 cases of affections of the rectum and anus, 351 cases of affections of the kidneys, 274 cases of affections of the bladder, 154 cases of affections of the testis and epididymis and 91 cases of affections of the spermatic cord.

#### *Out-patients :*

The total number of out-patients was this year 733,928 consisting of 232,303 new and 501,625 old out-patients.

The ophthalmic department still attracts the largest number of out-patients, namely 218,184. The surgical department follows with 182,709 out-patients and the medical diseases department with 88,783 out-patients.

A total of 43,558 out-patients (24,714 new and 18,844 old) attended the special tropical diseases section of the out-patients department.

## PART IV ENDEMIC DISEASES

### Chapter XVI—ANCYLOSTOMA AND BILHARZIA

#### I.—Statistical data about this year's Activities :

##### 1. Out—Patients :

##### (a) Treatment undertaken by Units :

The following table No. 88 gives the number of new patients, number of injections and anthelmintic doses given to patients during 1949 as compared with corresponding numbers of the previous year :

TABLE No. 88.

	1949	1948
Number of new patients. ... ..	1,133,223	1,046,019
Number of injections ... ..	4,378,959	3,867,355
Number of anthelmintic doses ...	420,296	404,683

##### (b) Treatment of pupils subject to written consent of Parents :

Of a total of 21,138 pupils examined in schools during the year :

7,481 suffered from bilharzia,  
285 suffered from ancylostoma and  
1,755 suffered from ascaris.

These received 45,346 anti bilharzia injections and 1,414 anthelmintic doses.

##### (c) Treatment of Territorial Forces :

Examination and treatment of the territorial force continued to be undertaken by Ancylostoma and Bilharzia Units.

Of 9,113 men examined, 4,384 suffered from bilharzia, 1,640 from ancylostoma and 2,206 from ascaris. A total of 40,511 bilharzia injections and 3,573 anthelmintic doses were given to patients.

##### (d) Treatment of the rural population by the branch clinic system :

Bilharzia units continued the examination and treatment of inhabitants of surrounding villages by the branch clinic system. The M.O. of the unit proceeds to the village on a certain day of the week to examine and treat the sick. During the year, branch clinic treatment was carried out in Wahal village, Kafr el Sheikh District, Talat village, Fayoum District and Manayel village, Shebin el Kanatir District.

Of a total of 10,702 inhabitants examined, 2,815 suffered from bilharzia, 225 from ancylostoma and 1,717 from ascaris. These were given 20,495 anti-bilharzia injections and 1,247 anthelmintic doses.

##### (e) Treatment by mobile units :

The following ten mobile units carried the examination and treatment of patients in the villages mentioned against each :



Mobile Unit No.	2	Shabas el Shohada, Desouk District.
	3	Helwan - Miniet Shebin, Shebin el Kanatir District.
	4	Shubra Nabas, Tanta District.
	6	Mandara, Alexandria.
	9	Tahta.
	13	Shubra industrial area - Mustorod, Cairo Suburbs
	14	Inshas.
	15	Manshiet el Bakri - Qaha, Toukh District.
	16	Abshaway, Barrage.
	17	Ezbet Kazouli, Delengat District.

Of a total of 34,068 patients examined, 17,929 suffered from bilharzia, 3,631 from ancylostoma and 19,032 from ascaris. These received 104,672 anti-bilharzia injections and 16,320 anthelmintic doses.

(f) *Combined Treatment Centres :*

The Bilharzia and Ancylostoma Section co-operated in 38 combined treatment centres of medical services of other organisations and ministries. Details of these centres are given later under co-operation with other authorities interested in endemic diseases treatment.

Of a total of 49,913 persons examined in these centres, 20,855 suffered from bilharzia, 5,823 from ancylostoma and 11,649 from ascaris.

To these were given 129,791 bilharzia injections and 13,299 anthelmintic doses.

(g) *Treatment of Workmen in Factories :*

Since parasitic infections affect the health of workmen and consequently reduce their productivity, a campaign was conducted for the examination and treatment of workmen in factories.

Of 16,354 workmen examined, 7,730 suffered from bilharzia, 858 from ancylostoma and 11,130 from ascaris. 61,496 injections were given to bilharzia patients and 10,382 anthelmintic doses administered.

(b) *Meals served to anaemia and pellagra out-patients :*

A total of 298,820 mid-day meals were issued to anaemia and pellagra out-patients attending the 100 Ancylostoma and Bilharzia units.

(i) *Certificates of freedom from parasites for pupils :*

A total of 67,077 certificates of freedom from parasites were given to pupils in schools and other educational institutions following the negative findings by microscopic examination.

2. *In-patients*

Of a total of 17,783 in-patients treated in the 98 units (including the Endemic and Medical Diseases hospital, Tewfikieh, Behera) 17,069 were cured. The remainder improved.

II.—*New Units :*

1. *Out-patient Units :*

No funds were made available and their number remained the same as in the previous year, namely 101.

2. *New In-patient Sections :*

Again no funds were allocated for new sections. The Ministry however completed the sections already approved in previous budgets, numbering 97. All the sections are now in operation. These sections accommodate a total of 1,940 beds, exclusive of 40 beds in Tewfikieh hospital.



### *Transfer of Units :*

In a re-shuffle of the units, the following have been transferred to Kaliubia Province to assist in the joint campaign against bilharzia which was launched this year :

- No. 3. mobile unit transferred from Helwan to Miniet Shebin, Shebin el Kanater District.
- No. 13. mobile unit transferred from Shubra Industrial area to Mostorod, Cairo suburbs.
- No. 15. mobile unit transferred from Manchiet el Bakri to Qaha, Toukh District.
- No. 16. mobile unit transferred from Abshaway, Fayoum, to Barrage.

### III.—*Improvements :*

#### (1) *Treatment :*

Atebrin is now used for the treatment of hymenolepis worms in the same way as taenia worms. Carbon tetrachloride is now used for the treatment of trichostrongyloides worms in the same way and under the same precautions used for the treatment of ancylostoma. Specific drugs were given in clinically suspected malaria cases where the disease is known to be prevalent. Secondary anaemia is now treated by tablets of iron sulphate.

#### (2) *In-patients :*

In-patients requiring supplementary treatment or isolation are referred to competent hospitals with request to follow up their treatment and report. The entertainment of in-patients is recommended.

#### (3) *Diets of patients :*

Two inspectors have been appointed to tour the units to ensure that patients received their full quantities of diets. As a precaution against the transmission of infectious, parasitic or skin diseases to patients, all personnel engaged in handling diet including contractors, are medically inspected annually.

The ten mid-day meals served by each unit to anaemia and pellagra out-patients have been increased in quantity to produce 1,759 calories each.

#### (4) *Constructional Improvements :*

In units accommodated in wooden hutments, the floor in kitchens, wash-houses and lavatories has been built of cement tiles to ensure better sanitation and facilitate cleanliness. Gardens have been provided in a number of units. It is proposed to introduce these improvements in the remaining units as and when possible.

### IV.—*Development of Projects :*

#### (1) *The Bilharzia General Treatment Campaign :*

Reference was made in previous reports to the arrangement made between the Bilharzia and Ancylostoma Section and medical services of other ministries interested in endemic diseases control, under which the Section provided trained technical personnel and equipment and the medical services undertook the treatment of endemic diseases. Under this arrangement, it was possible to increase the number of treatment units and bring treatment to patients in distant localities.

Desiring to exploit this co-operation to the maximum extent possible, the Ministry decided to provide a treatment unit to every group of villages lying within a limited area. Units of the various medical services of other ministries are utilized for the purpose. Where no units exist, a mobile unit visits the village for examination and treatment. After spending about two months in the village, it moves to another and so on.

A committee convened under the chairmanship of the Minister of Health and membership of representatives of medical services of this ministry and other ministries decided to apply this arrangement to Kaliubia province as an experiment. The province was divided into five zones, namely, Benha, Toukh, Kaliub, Shebin el Kanatir and Mataria (Suburb).

Units engaged in this experiment were provided with laboratory assistants and tamurgis as follows :

TABLE No. 89

Service	Number of Units	Lab. Assts	Tamurgis	Remarks.
Rural Hygiene Department ...	11	22	22	Each unit was provided with 2 lab. assts. and 2 tamurgis and equipment.
Hospitals Section ... ..	1	2	1	Shubra el Kheima Hospital was provided with 2 lab. assts. and 1 tamurgi and equipment.
Ministry of Education... ..	1	1	2	The mobile unit was provided with 1 lab. asst. and 2 tamurgis and equipment.
Ministry of Social Affairs (Social Centres) ... ..	8	8	8	Each social centre was provided with a Lab. asst. and a tamurgi and equipment.
TOTAL ... ..	21	33	33	

The necessary instructions were circulated to operators. Each of the five zones was assigned to an inspector of the Section. A propaganda vehicle with a preacher was provided to tour the zones and carry propaganda activities in support of these units.

The campaign was started in Kaliubia on 21st, December 1949.

## 2. *Certificates of Freedom from Parasitic Infection.*

Bilharzia and Ancylostoma Units continued the examination of pupils in all schools. Negative pupils were issued with certificates of freedom from parasitic infection.

Factories and firms employing large number of workmen were requested to insist on producing certificates of freedom from parasites by their workmen before appointment.

It has been decided to apply this condition to the following categories :

Candidates for hors cadre government service.

Workmen in industrial firms and contractors' labour.

Itinerant vendors.

Domestic servants and other categories who apply for identity cards from the Identity Department.

It is proposed to further apply this condition to daily paid workmen who apply for permanent service in the government.



(3) *Compulsory Treatment Campaign :*

Laboratory surveys were resumed in Talaat village, Fayoum Province on the lines adopted in 1946–1948. These surveys were still in progress at the end of the year. The final results will be published on completion.

Amendment of Law No. 58 of 1951 regulating bilharzia control is under consideration. New provisions will be introduced to ensure : that all students and workmen produce certificates of freedom from bilharzia infection, that the law shall apply to communities outside the areas prescribed, that offences against the law shall not lapse after three years from date of application of the law to the locality.

(4) *Drug Tests :*

Experiments referred to in last year's report have been continued in co-operation with the Research Institute and Hospital for Tropical Diseases, namely :

Daily administration of tarter injections.

Two-day abortive treatment with Ripodral for in-patients.

Four-day abortive treatment with Ripodral for out-patients.

The Institute was requested to carry experiments on the treatment of taenia with potassium tartrate tablets.

(5) *Co-operation with organizations concerned with the treatment of endemic diseases.*

This year, the cooperative centres totalled 38 (21 of these have been referred to in the Kaliubia project). The remaining 17 are shown herebelow :

Two health centres at Gaehena and Khanka villages.

Frontier Districts units at Arish, Siwa, Dakhla, Kharga and Mersa Matrouh.

Fayed Malaria Research Station of the Research Institute and Hospital.

Medical Section of Cairo University.

Medical Section of El Azhar University.

Medical Services in the following enterprises :

Sugar Factory at Armant—Misr Spinning at Kafr el Dawar — Misr Spinning and Weaving at Mehalla Kobra.

Home for stray children at Agouza.

Womens' Society for the amelioration of health at Pyramids.

Amira Fadia Foundation at Abbassia.

Red Crescent Hospital at Armant.

V.—*Training :*

The policy of training fresh staff and raising the technical and educational standard of old staff has been maintained. The training Centre at No. 20 Fom el Khalig Ancylostoma Hospital trained 49 new medical officers, 11 clerks and 13 laboratory assistants for the Section and 17 medical officers and 100 laboratory assistants for other organizations, *i.e.* Rural Health department, Social Affairs, School Hygiene department, Hospitals Section, Chest Diseases section, Fouad Hospital for confinement and the Leprosy section. Some of the Section's personnel were delegated to train in insect control, examination of blood films for malaria and propaganda work.

VI.—*Propaganda :*

Special attention was paid to the organization of the various aspects of propaganda work this year namely :

(1) Arranging lectures to be delivered to patients within the units and to the institutions outside.

(2) Distribution and hanging up of propaganda literature in public thoroughfares and much frequented places.



(3) Preparation of posters illustrating the various endemic diseases, *i.e.* bilharzia, ancylostoma, ascaris, etc.

(4) Preparation of designs of parasitic diseases on post-cards.

(5) Showing of films and production of a film on bilharzia.

(6) Arranging broadcasts on parasitic infections comprising health talks, light representations and dialogues in simple language.

(7) Giving theatrical performances on endemic diseases, their dangers and how to protect against them.

(8) Participation in the 1949 Agricultural and Industrial Exhibition.

(9) Publishing a booklet on bilharzia and other parasitic diseases and its distribution among organizations and individuals.

(10) Raising the standard of health education among the pupils of the schools for health visitors, and social health workers of the Ministry of Education and pupils of child welfare centres at Bab el Shaaria, Zeitoun, Old Cairo, Shubra, Sharabia and Boulaq as well as among midwives and inspectresses of the Farmer's Department, Ministry of Social Affairs.

#### VII.—*Control* :

Again the Section paid special attention to the control of foci of infection. Legal steps have been taken for the amendment of the Decree dated 18 th. December, 1945 forbidding the contamination of water ways and birkas. The competent authorities have been approached for the extermination of planorbis snails from Suez locality and forbidding the use of human manure in the fertilization of vegetables in Zawia el Khadra village, Fayoum.

## Chapter XVII.—MALARIA

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The number of malaria stations remained the same as in the previous year, namely 36 main stations and 76 branch stations.

### *Blood Specimens and their results :*

Out of total of 68,715 blood specimens examined microscopically this year, 16,390 or 23.8 per cent were returned positive (both new infections and relapses) with a decrease of 4.5 per cent as compared to last year. This is a result of the increased mosquito larvae control measures, use of modern insecticides and exercising closer supervision on aircraft activities. Tables Nos. 106, 107 and 108 give the distribution of these specimens according to two categories: (1) Persons attending malaria units and (2) Suspected persons and general examinations.

In addition, the Research Institute for Tropical Diseases examined the blood specimens that were sent from different localities. Table No. 109 gives details of the result of examination. Table No. 110 gives the distribution of blood specimens examined for filariasis by the Institute. Table No. 111 refers to blood specimens examined by malaria branches annexed to Ancylostoma hospitals. These branches are now 18 in number with an increase of ten branches over that of last year.

### *New Infections and Relapses :*

According to table No. 108, 3,129 cases were considered new infections and 13,261 relapses or a ratio of 19 per cent of the total positive cases for the former as against 31.3 per cent in the previous year i.e. a decrease of 12.3 per cent

### *Malaria Among Infants Under One Year :*

Table No. 112 gives the malaria general ratio among infants under one year of age in Lower and Upper Egypt as compared to last year. Malaria in infants is considered new infections.

### *Types of Malaria :*

Tables Nos. 113 and 114 give the incidence of the two types of malaria (Benign and Malignant) in the Governorates and Provinces provided with malaria stations and the percentage of each type to total positive cases.

### *Monthly Distribution of Malaria :*

Tables Nos. 115 and 116 give the monthly distribution of malaria cases of all types in Lower and Upper Egypt.

It is observed that the incidence rate of the benign tertian type was highest in Lower Egypt during May and June and in Upper Egypt during May and October. The ratio of the malignant type was highest in Lower Egypt during October and January and in Upper Egypt during October and December.

### *Malaria Cases reported in Governorates and Provinces during 1948 and 1949.*

Table No. 117 gives the number of malaria cases and deaths reported to the Statistical Department from the Governorates and Provinces during 1948 and 1949. It shows that there were 6 deaths and 1626 cases less than in 1948.

### *Survey of Mosquito Breeding Places :*

Mosquito breeding places were surveyed by malaria units on the same lines as in previous years. Priority of disposal was governed by the incidence of malaria. These were reported to the Public Utilities Service or other competent Departments for disposal. Table Nos. 118, 119, 120, and 121 give details of the survey work and results thereof,



### *Control Work :*

Control work by different modern methods (permanent and temporary) was carried out as in the previous year. Table No. 122 gives details of the insecticides employed, the quantities consumed and the areas controlled.

### *Warnings and Contraventions :*

Besides the above mentioned control work, malaria units supervised the application of Malaria Law No. 1 of 1926 modified by Law No. 78 of 1946. Warnings and contraventions were served and judgments were given in certain cases. Table No. 123 gives details of the warnings and contraventions served in Lower and Upper Egypt.

### *Treatment and Drugs :*

Malaria treatment was given to cases proved positive by microscopic examination. Table No. 125 gives details of the various drugs distributed by malaria units in Lower and Upper Egypt. Treatment is now available to malaria patients at all treatment centres throughout the country.

### *Application of the Malaria Law No. 1 of 1926 modified by Law No. 78 of 1946 and restriction of rice and sugar-cane cultivations.*

Laws and arrêtés restricting aqueous cultivations were applied on the same lines as in previous years.

### *Control of mosquitoes and flies within Public Health Units :*

Buildings of the important public health units were spray painted with 5 per cent D.D.T in Kerosene as a control measure against mosquitoes and flies.

### *Propaganda :*

As in previous years, propaganda activities were carried out in conjunction with health propaganda units. Every propaganda means was employed to explain to the inhabitants the life cycle of the malaria carrier mosquito, its characteristics, means of its spread and methods of protection and treatment.

### *Complaints :*

All complaints receive due consideration and the cause of the complaints removed.

### *Mosquito control in Cairo :*

Mosquito control in Cairo was carried out on the same lines as in previous years. The number of darakat (zones) was increased to 97, as against 92 in the previous year, distributed among 10 districts having 120, 594 houses. 33, 514 of these houses were connected to the main drainage system and the rest or 72 per cent were drained in private cesspits. The following table No. 90 shows the distribution of these houses and darakat in the districts.



TABLE No. 90

Serial Number	District	Number of Darakat		No. of houses		TOTAL
		Houses	Farms	Drained in private cesspits	Connected to the main Drainage	
1	Shubra ... ..	13	1	19,406	9,679	29,085
2	El Daher ... ..	14	4	14,483	9,250	23,733
3	Fom el Khalig ... ..	13	—	11,730	6,657	18,387
4	Darb el Ahmar: ... ..	13	—	13,027	4,353	17,380
5	Imam el Shafie ... ..	—	—	—	—	—
6	Zeitoun ... ..	9	1	4,890	2,325	7,215
7	Maadi ... ..	5	2	6,169	33	9,202
8	Helwan ... ..	3	3	2,466	—	2,466
9	Giza ... ..	8	—	9,301	547	9,848
10	Imbaba ... ..	8	—	5,608	670	6,278
TOTAL ... ..		86	11	87,080	33,514	120,594

*Mosquito control can be summarized in the following :*

(1) Mosquito control in habitations : Cairo and its suburbs were divided into 97 darakat distributed over the nine districts. Private cesspits were sprayed with D.D.T. in malariol. Out of 219 complaints received against mosquitoes, 43 were true and were dealt with.

(2) Malaria control in cultivated lands : Streams within cultivated lands were surveyed for mosquito larvae. Malaria control was carried out with 5 per cent D.D.T. in malariol or Paris Green. The governmental drains were cleaned from weeds.

(3) Sanitary Systems in habitations. Habitations were examined for this purpose and warnings were served on owners for lacking sanitary requirements. In case of failure, contraventions were drawn up and judgments obtained for removal of sources of offence at the expense of owners.

The following table No. 91 gives details of the measures taken.

TABLE No. 91

Memoranda received from the districts	Complaints from the inhabitants	Warnings served	Executed	Unexecuted	Remarks
1,866	1,729	2,669	642	1,919	Some memoranda and complaints were sent to government departments.

Survey and control measures were also taken against larvae of *Aedes egypti*, the yellow fever vector, breeding within Heliopolis and Almaza and Cairo airports. A malaria team joined the Palestine campaign for the control of malaria, and remained in Palestine from August 1947 to July 1949.

The Nile flood was not so high this year, hence seepage water appeared in few places in Cairo totalling 61 feddans in area. These were treated with larvicides until dried up.

The following table No. 92 shows the quantities of insecticides consumed during this year.

TABLE No 92

	Ton	Kil.	Gram.
D.D.T. in malariol ...	73	408	500
D.D.T. emulsion ...	5	922	500
D.D.T. in Kerosene...	—	400	—
Cooking Gas Oil ...	12	929	—
Paris Green ... ..	—	2	500
D.D.T. Gypsum balls	—	Three balls	

THE FOLLOWING TABLE NO. 93 SHOWS LARVAE SPECIES DETECTED IN CAIRO DURING 1949.

Kinds of larvae	Shubra	Daher	Khalifa	Darb El Ahmer and Imam el Shafie	Zeitoun	Maadi	Helwan	TOTAL
	1	2	3	4 and 5	6	7	8	
A. pharoensis ...	3	13	—	—	8	25	14	63
Culex pipiens... ..	74	92	28	21	19	54	65	353
Culex prex. ... ..	1	19	1	—	—	6	2	29
Culex lan. ... ..	—	—	1	—	—	—	—	1
Aedes egypti. ...	2	3	—	—	—	—	2	7
Aedes casp. ... ..	2	22	1	—	—	5	4	34
TOTAL ... ..	82	149	31	21	27	90	87	487

The personnel of this branch is made up of 5 supervisors, 13 controllers and surveyors, 89 overseers, 16 foremen and 493 labourers under the supervision of a medical officer or an engineer. Clerical duties were carried out by a clerk assisted by some overseers. A credit of L.E. 41,000 was allocated for wages during the year 1949—1950 as against L.E. 20,000 in the previous year.

#### *Sanitary Engineering Service :*

This branch carried out sanitary repairs ordered in 81 houses in Cairo under Malaria Law No. 1 of 1926 amended by Law No. 78 of 1946. These repairs cost L.E. 1,996 debited to L.E. 2,000 allocated for this purpose.

THE FOLLOWING TABLE NO. 94 SHOWS THE DISTRIBUTION OF  
THESE REPAIRS

District	No. of houses	District	No. of houses
Bab el Shaaria ... ..	96	Sayed a Zeinab ... ..	2
Darb el Ahmar ... ..	9	Old Cairo ... ..	2
Abdin ... ..	2	Gamalia ... ..	23
Khalifa ... ..	2	Waili ... ..	3
Zeitoun ... ..	18	Rod el Farag ... ..	2
Ezbekia ... ..	1	Boulaq ... ..	1

This work was carried out under the supervision of three sanitary engineers assisted by three draughtsmen.

*Anti Mosquite Campaign in Fayoum :*

Last year's program was resumed this year. Spray painting of habitations was continued in the remaining darakat of the Province, mostly in Fayoum and Abshaway Districts. Until the end of 1948, 54 out of 175 darakat, the total darakat of the province, had been spray painted. During the year 1949, the remaining 12 darakat in Fayoum District were treated during the period from January until the end of March. Work was then transferred to Itsa District where 18 darakat were spray painted by the end of the year.

In Abshaway District, the remaining 20 darakat were treated by the end of August. Work was then transferred to Sennouris District where 15 darakat were spray painted by the end of the year.

THE FOLLOWING TABLE NO. 95 GIVES DETAILS OF THIS WORK

District	No. of darakat	Darakat painted during 1948	Darakat painted during 1949	Darakat without paint until the end of 1949	Remarks.
Fayoum ... ..	46	33	12	1	This darak of Bandar Fayoum was left intentionally without control in order to find out its non-infestation period.
Sennouris ... ..	47	3	14	30	
Abshaway ... ..	34	13	21	—	
Itsa ... ..	48	5	18	25	
<b>TOTAL ... ..</b>	<b>175</b>	<b>54</b>	<b>65</b>	<b>56</b>	

This shows that 65 darakat were treated during 1949 in the four districts and 119 darakat during 1948 and 1949 out of a total of 175 darakat representing the whole province



The following table No. 96 gives details of houses and rooms spray painted during 1948, and 1949 in the four districts.

District	1948		1949	
	No. of Houses	No. of Rooms	No. of Houses	No. of Rooms
Fayoum ... ..	25,115	121,646	7,502	39,386
Sennouris ... ..	5,203	22,455	7,244	31,863
Abshaway ... ..	15,518	68,817	13,132	67,918
Itsa ... ..	5,450	23,608	20,320	100,998
<b>TOTAL ... ..</b>	<b>51,286</b>	<b>236,526</b>	<b>48,198</b>	<b>240,165</b>

*Mosquito survey :*

In 1948, the ratio of mosquito infestation of houses was 13.1 per cent before spray painting and 3.4 per cent after. In 1949 these were 8.8 per cent and 6 per cent respectively. During the first half of 1949, however, these ratios were 3 per cent and 0.5 per cent respectively, the insecticide used being D.D.T. and malariol. During the latter half of the year, neocid was used instead and some difficulties were encountered during its use. Details are given in the following tables Nos. 97 and 98:

TABLE NO. 97.—MONTHLY DISTRIBUTION OF MOSQUITOES BEFORE SPRAY PAINTING.

Month	No. of Houses examined	Positive	A Sergenti	A Pharoensis	A Multicolor	Percentage		
						A.S.	A.PH.	A.M.
January ... ..	2,907	24	15	1	8	.5	.03	.27
February ... ..	2,827	15	4	9	1	.14	.31	.07
March ... ..	3,126	44	—	9	35	—	.28	1.1
April ... ..	1,735	38	—	3	35	—	.17	2
May ... ..	3,628	287	42	16	229	1.1	.44	6.3
June ... ..	3,968	147	9	—	120	.22	.32	3.1
July ... ..	3,193	136	10	89	37	.3	2.7	1.1
August ... ..	4,728	458	11	354	93	.23	7.5	2
September ... ..	3,777	844	47	651	140	1.2	17.2	3.8
October ... ..	3,110	727	35	592	100	1.1	1.9	3.2
November ... ..	3,519	574	58	446	70	1.6	12.6	2
December ... ..	4,248	303	42	145	116	1	3.3	2.7
<b>TOTAL ... ..</b>	<b>40,766</b>	<b>3,597</b>	<b>273</b>	<b>2,324</b>	<b>1,000</b>	<b>.7</b>	<b>5.7</b>	<b>2</b>

TABLE NO. 98.—MONTHLY DISTRIBUTION OF MOSQUITOES AFTER SPRAY PAINTING.

Month	No. of Houses	Positive	A Sergenti	A Pharcensis	A Multicolor	Percentage		
						A.S.	A.P.H.	A.M.
January ... ..	2,897	1	1	—	—	·03	—	—
February ... ..	2,135	1	—	—	1	—	—	·04
March ... ..	2,155	—	—	—	—	—	—	—
April ... ..	2,851	1	—	1	—	—	·03	—
May ... ..	3,159	44	5	7	32	·12	·22	·1
June ... ..	1,595	31	—	—	31	—	—	1·9
July ... ..	1,314	43	1	23	19	·08	1·7	1·4
August ... ..	2,679	208	8	181	19	·3	6·7	·07
September ... ..	2,161	286	3	222	61	1·4	10·2	2·8
October ... ..	2,572	404	27	300	77	·1	11·6	·3
November ... ..	2,425	485	90	321	74	3·7	13·2	·3
December ... ..	2,235	188	133	120	35	1·4	5·3	1·5
<b>TOTAL ... ..</b>	<b>28,201</b>	<b>1,692</b>	<b>168</b>	<b>1,175</b>	<b>349</b>	<b>·6</b>	<b>4·2</b>	<b>1·2</b>

The General Average is 6.6 per cent.

*Larvae Control :*

Larvae control was carried out in the three districts of Fayoum, Sennouris and Abshaway on the same lines as in the previous year. 5 per cent D.D.T. in malariol was used in control work. During June, 3 per cent neocid was used in some darakat of the districts mentioned and from August until December, 1 per cent paris green was used in some darakat of Fayoum District.

*Larvae Survey before and after spraying :*

The general ratio for larvae infestation in the province was 1.6 per cent before spray painting. This fell to 1.2 per cent in 1948 and 1.66 per cent at the end of 1949. The ratio in Fayoum District (around the Bandar) was particularly low being 0.4 per cent. This was the result of spray painting the houses with D.D.T. in Kerosene during 1947 and D.D.T. in malariol during 1948.

TABLE NO. 99—MONTHLY RESULTS OF LARVAE SURVEY :

Month	No. of Units Surveyed	No. of Positive Units	A. Sergenti	A. Pharoensis	A. Multicolor	Percentage			Remarks
						a. s	a. ph	a. m	
January ... ..	8,248	26	8	15	3	·09	·18	·03	
February ... ..	7,066	2	1	1	—	·01	·01	—	
March ... ..	8,309	20	2	13	11	·02	·15	·13	
April ... ..	8,896	21	5	10	6	·05	·11	·06	
May ... ..	9,496	96	35	25	36	·36	·26	·36	
June ... ..	7,571	60	5	19	36	·06	0·25	·47	
July ... ..	7,460	69	1	65	3	·01	·87	·04	
August ... ..	11,344	174	1	154	19	·001	1·03	·16	
September ... ..	9,400	172	8	146	18	·08	1·5	·19	
October ... ..	8,772	180	11	143	26	·12	1·6	·3	
November ... ..	10,476	165	11	142	12	·1	1·3	·1	
December ... ..	10,065	153	8	127	18	·08	1·2	·17	
<b>TOTAL ... ..</b>	<b>107,093</b>	<b>1,144</b>	<b>96</b>	<b>860</b>	<b>188</b>	<b>·09</b>	<b>·8</b>	<b>·17</b>	The general ratio is 1.06% as against 1.2% in 1948

TABLE NO. 100.—RESULTS OF LARVAE SURVEY ACCORDING TO DISTRICTS

District	No. of Units Surveyed	Positive	A. Sergenti	A. Pharoensis	A. Multicolor	Percentage			Average
						a. s	a. ph	a. M	
Fayoum ... ..	33,205	133	9	112	12	·02	·3	·3	·4
Sennouris ... ..	26,417	375	34	292	49	·1	1·1	·01	1·4
Abshaway ... ..	26,189	343	46	238	59	·17	·8	·2	1·2
Itsa ... ..	19,508	293	7	218	68	·03	1·01	·3	1·5
<b>TOTAL ... ..</b>	<b>107,093</b>	<b>1,144</b>	<b>96</b>	<b>860</b>	<b>188</b>	<b>·09</b>	<b>1·8</b>	<b>·17</b>	<b>1·06</b>

Remarks : As against 1.2 per cent in 1948.



THE FOLLOWING TABLE NO. 101 SHOWS THE RESULTS OF CONTROL  
WORK DURING 1949 AS COMPARED WITH 1946 AND NUMBER OF CASES  
AND DEATHS OF MALARIA DURING THE TWO YEARS

Year	Larvac	Mosquitoes	New cases	Deaths
	%	%		
1946	6	33	1,622	3
1949	106	6	82	—

*Expenditures :*

TABLE NO. 102 DETAILS OF EXPENDITURE DURING 1949.

Salaries		Wages		Insecticides		Rents		Motorcar Repair		Telegrams		Water		TOTAL	
L.E.	Mills	L.E.	Mills	L.E.	Mills	L.E.	Mill	L.E.	Mills	L.E.	Mills	L.E.	Mills	L.E.	Mills
304	400	16,127	932	3,027	924	197	394	98	851	3	395	2	014	19,887	910

TABLE No. 103.—SANTARY AIR SQUADRON CONTINUED ITS WORK DURING 1949 AS INDICATED BELOW :

Date		District	No. of Sprayings	Flying Time		Spraying Time		Benzine in Gallons	Oil in Gallons	D. D. T. in		Area in acres	Total expenses L.E. Mills	Average cost of spraying the acre once Mills.
Beginning Work	Termina- ting Work			H.	M.	H.	M.			Malariaol 15% in Gallons	Velsicol 20% in Gallons			
2/5	10/5	Ballah (Canal Zone)...	3	7	10	1	37	185	2	—	191	2,712	167,275	61.6
15/6	27/9	Idku ... ..	3	26	20	7	46	641	10	567	518	11,380	520,525	45.07
21/6	18/10	Alexandria and Montazah ... ..	5	206	5	62	16	5,628	95.5	2,556	6,912	115,537	6,333,759	54.8
5/11	9/11	Kobba Palace area ... ..	3	5	35	2	12	166	3.5	—	261	3,696	222,560	60.1
17/11	23/11	Army Parade Grounds at Almaza ...	4	3	30	1	33	103	2	—	185	2,601	156,250	60
4/12	Cont.	Fayoum Auberge ... ..	3	17	15	3	40	426	6.5	—	431	6,160	378,200	61.5
		TOTAL ... ..	...	265	45	78	4	7,148	119.5	2,923	8,498	142,093	7,788,800	54.7

TABLE No. 104—RESULTS OF AERIAL CONTROL WORK :

District	No. of Sprayings	Larvae				Adult Mosquitoes			
		Anopheles Before Spraying	After Spraying	Culex Before Spraying	After Spraying	Anopheles Before Spraying	After Spraying	Culex Before Spraying	After Spraying
		%	%	%	%	%	%	%	%
Idku :									
Land Darakat	4	18.2	4.3	4.8	7.6	12.8	8.6	66.8	57.9
Sea Darakat	4	10.5	6.6	0.6	4.6				
From 15/6 — /27/9/1949									
Alexandria :									
Area A	2	—	—	25	18.5	No adult Mosquitoes surveyed			
Area B	4	6	1.4	32.6	19				
Area C	5	34.8	—	34.5	11.3				
Area D	4	31.6	—	37.8	8.1				



TABLE No. 105—RESULTS OF FOGGING BY AIRCRAFT ON FLIES IN THE PERIOD FROM 25/8 UNTIL 28/8/1948.

Date	Site of experiment	Duration of Fogging	No. of aircrafts	Temperature	Speed of Wind (Miles per hour)	Death rates in Flies		Velsicol consumed in Gallons	Area covered by fogging fedans	Average of insecticide to the acre	Remarks on wind
						After 4 hours	After 24 hours				
						%	%				
25/8	Ras el Tin Palace	38	2	24.04	12-15	13	14	75	1,064	14.18	Moderate wind.
26/8	"	46	3	23.08	13-17	25	13	38	532	14	Air Pockets
27/8	"	39	2	23.03	12-15	42	38	77	1,092	14.18	"
28/8	Montazah Palace	100	3	24.04	12-14	49	45	199	2,800	14.07	Moderate.

(1) Average increase in death rate during the last three days = 39 per cent

(2) Average amount of insecticide used per feddan = 14.11 Gallons.

**TABLE No. 106.—DISTRIBUTION OF BLOOD FILMS EXAMINED FOR LOWER EGYPT  
AND CANAL AND SUEZ GOVERNORATES DURING 1949**

Category	No. of specimens	Positive			Rate Per cent
		New	Relapses	Total	
(1) Attendance at Malaria Units and Ancylostoma Hospitals	41,550	2,947	10,771	<b>13,718</b>	33
(2) Suspected cases in habitations and under general examination ... ..	1,384	22	188	<b>210</b>	15.1
<b>TOTAL ... ..</b>	<b>42,934</b>	<b>2,969</b>	<b>10,959</b>	<b>13,928</b>	<b>32.4</b>

**TABLE No. 107.— DISTRIBUTION OF BLOOD FILMS EXAMINED FOR UPPER EGYPT  
AND THE SOUTHERN AND WESTERN DESERT GOVERNORATES DURING 1949**

Category	No. of specimens	Positive			Rate Per cent
		New	Relapses	Total	
(1) Attendance at Malaria Units and Ancylostoma Hospitals	18,799	134	2,064	<b>2,198</b>	11.7
(2) Suspected cases in habitations and under general examination ... ..	6,982	26	238	<b>264</b>	3.7
<b>TOTAL ... ..</b>	<b>25,781</b>	<b>160</b>	<b>2,302</b>	<b>2,462</b>	<b>9.5</b>

**TABLE No. 108.— GENERAL DISTRIBUTION OF BLOOD FILMS EXAMINED FOR MALARIA  
IN EGYPT DURING 1949**

Category	No. of specimens	Positive			Rate Per cent
		New	Relapses	Total	
(1) Attendance at Malaria Units and Ancylostoma Hospitals	60,349	3,081	12,835	<b>15,916</b>	26
(2) Suspected cases in habitations and under general examination ... ..	8,366	48	426	<b>474</b>	5.6
<b>TOTAL ... ..</b>	<b>68,715</b>	<b>3,129</b>	<b>13,261</b>	<b>16,390</b>	<b>23.8</b>

**TABLE No. 109.— NUMBER OF SPECIMENS EXAMINED FOR MALARIA  
BY RESEARCH INSTITUTE DURING 1949**

Category	No. of Blood specimens	Positive Malaria			Total positive	Rate per cent
		Benign	Malignant	Mixed infection		
(2) Specimens from Malaria stations and outposts ...	9,396	970	84	4	<b>1,058</b>	11·2
(1) Specimens from Hospitals...	343	89	5	—	<b>94</b>	27·4
(3) Specimens from Ancylostoma Units ... ..	231	21	1	—	<b>22</b>	9·5
<b>TOTAL ... ..</b>	<b>9,970</b>	<b>1,080</b>	<b>90</b>	<b>4</b>	<b>1,174</b>	<b>11·8</b>

**TABLE No. 110.— DISTRIBUTION OF BLOOD FILMS EXAMINED FOR FILARIASIS  
BY RESEARCH INSTITUTE DURING 1949**

Province or Governorate	Locality of Exam.	No. of Specimens	Positive Filaria	Rate per cent	Remarks.
Cairo ... ..	Research Institute in Cairo ... ..	43	1	2·3	
Behera... ..	Rosetta ... ..	8,468	679	8	
	<b>TOTAL ... ..</b>	<b>8,511</b>	<b>680</b>	<b>7·9</b>	



TABLE No. 111.— NUMBER OF BLOOD SPECIMENS EXAMINED BY MALARIA UNITS ANNEXED  
TO ANCYLOSTOMA HOSPITALS IN EGYPT DURING 1949

Ancylostoma Units	No. of Blood Speci- mens	Positive Malaria	Rate Per cent	Positive Malaria				Remarks	
				Benign Ter.		Malig. Ter.			
				New	Relap.	New	Relap.		
Benha ... ..	1,450	232	16	26	204	1	1	From August to December.	
Shebin el Kom ... ..	812	154	18.9	5	148	—	1		
Zagazig ... ..	279	152	54.4	47	74	—	31		
Faccous ... ..	184	109	59.2	77	27	5	—		
Abu Kebir ... ..	5,644	1,566	27.7	1,049	386	88	43		
Belbeis ... ..	401	149	27.1	7	70	5	67		
Ismailia ... ..	971	31	3.1	19	12	—	—		
Dekernis ... ..	2,683	692	25.8	25	654	—	13		
Mehalla el Kobra ... ..	369	178	48.2	125	53	—	—		
Biala ... ..	2,098	563	26.8	5	556	1	1		
Kafr el Sheikh ... ..	3,859	1,771	45.7	270	1,492	2	7	From September to December.	
Dessouk ... ..	3,893	2,332	60	551	1,720	24	37		
Fowa ... ..	3,022	1,969	65.1	1	1,808	—	163		
Kafr el Dawar ... ..	1,329	148	11.1	27	117	—	4		
Damanhour ... ..	80	7	8.7	—	7	—	—		
Fayoum ... ..	1,016	154	15.1	31	113	2	8		
Beni Suef ... ..	156	57	38.6	—	55	—	2		
Aswan... ..	412	9	2.7	—	9	—	—		
TOTAL ... ..	26,658	10,273	38.5	2,265	7,505	128	375		From August to December.

**TABLE NO. 112.—MALARIA CASES AMONG INFANTS UNDER ONE YEAR OF AGE  
IN LOWER AND UPPER EGYPT DURING 1948 AND 1949.**

Year 1949					Year 1948		
Province or Governorate	Name of Station	No. of children examined for Mala.	Positive	Rate Per cent	No. of children examined for Mala.	Positive	Rate Per cent
Behera... ..	{ Idku ... ..	77	8	10.3	210	42	20
	{ Kafr el Dawar ...	31	2	6	—	—	—
Gharbia ... ..	{ Biala ... ..	11	—	—	49	19	39.3
	{ Mehalla el Kobra...	20	8	40	40	11	27
Dakahlia ... ..	Dekernis... ..	—	—	—	56	35	62.6
Canal ... ..	{ Suez... ..	1	—	—	—	—	—
	{ Ismailia ... ..	—	—	—	216	—	—
Sharkia ... ..	Belbeis ... ..	89	18	20.2	3,114	1,149	37
	Abu Kebir ... ..	548	79	22.7	422	119	28.1
	Inshas ... ..	31	13	53.8	19	8	42
Menoufia ... ..	Shebin el Kom ...	2	2	100	—	—	—
Kaliubia ... ..	Toukh ... ..	56	8	14.2	100	10	10.
TOTAL ... ..		666	138	20.7	4,266	1,393	32.9
Southern Desert ...	Kharga Oasis ...	29	—	—	45	—	—
Giza ... ..	Giza ... ..	—	—	—	3	—	—
Fayoum ... ..	{ Fayoum ... ..	—	—	—	—	4	—
	{ Abshaway ... ..	239	42	17.5	610	114	18.6
Minia ... ..	Minia ... ..	5	3	60	—	—	—
Qena ... ..	Qena ... ..	5	3	60	2	2	100
Aswan ... ..	Aswan ... ..	—	—	—	1	1	100
TOTAL ... ..		278	48	17	665	117	17.5
GRAND TOTAL ...		944	186	19.7	4,891	1,510	30.8

**TABLE No. 113.—DISTRIBUTION OF MALARIA CASES ACCORDING TO SPECIES  
IN LOWER EGYPT AND CANAL GOVERNORATE DURING 1949**

Province or Governorate	Total of Specimens	Total of Posit. Cases	Rate per cent	Benign Tertian				Malignant Tertian			
				No.	New	Relapse	Rate per cent	No.	New	Relapse	Rate Per cent
Canal ... ..	1,356	58	4.2	57	35	22	4.2	1	1	—	.07
Western Desert ...	4,861	273	5.8	273	11	262	5.8	—	—	—	—
Behera ... ..	4,344	770	17.8	765	27	738	17.7	5	—	5	.1
Gharbia ... ..	13,425	6,926	51.5	6,690	962	5,728	49.8	236	27	203	1.01
Dakahlia... ..	6,567	2,002	30.4	1,982	731	1,251	30.3	20	5	15	.2
Sharkia ... ..	7,726	2,577	33.3	2,398	1,034	1,364	31.2	179	26	153	2.2
Menoufia... ..	812	154	18.8	153	5	148	18.8	1	—	1	.1
Kaliubia ... ..	3,843	1,168	30.3	1,148	105	1,043	29.8	20	—	20	.5
<b>TOTAL ... ..</b>	<b>42,934</b>	<b>13,928</b>	<b>32.4</b>	<b>13,466</b>	<b>2,910</b>	<b>10,556</b>	<b>75.8</b>	<b>462</b>	<b>59</b>	<b>403</b>	<b>3.3</b>

**TABLE No. 114.—DISTRIBUTION OF MALARIA CASES ACCORDING TO SPECIES IN UPPER EGYPT  
AND THE SOUTHERN DESERT GOVERNORATE DURING THE YEAR 1949**

Province or Governorate	Total of Specimens	Total of Posit. Cases	Rate per cent	Benign Tertian				Malignant Tertian			
				No.	New	Relapse	Rate per cent	No.	New	Relapse	Rate Per cent
Southern Desert ...	3,128	27	.8	22	6	16	81.4	5	3	2	18.6
Giza ... ..	5,410	1,028	14	963	—	963	93.6	65	—	65	6.4
Fayoum ... ..	6,386	726	11.3	682	53	629	93.9	44	5	39	6.1
Beni Suef ... ..	413	29	7	28	3	25	96.5	1	1	—	3.5
Minia ... ..	2,779	472	17	459	53	406	97.2	13	3	10	2.8
Assiut ... ..	1,211	34	2.8	34	33	1	100	—	—	—	—
Gerga ... ..	156	15	9.6	15	—	15	100	—	—	—	—
Qena ... ..	5,571	106	1.9	106	—	106	100	—	—	—	—
Aswan ... ..	727	25	3.4	25	—	25	100	—	—	—	—
<b>TOTAL ... ..</b>	<b>25,781</b>	<b>2,462</b>	<b>9.5</b>	<b>2,334</b>	<b>148</b>	<b>2,186</b>	<b>94.8</b>	<b>128</b>	<b>12</b>	<b>116</b>	<b>5.2</b>



TABLE No. 115.— MONTHLY DISTRIBUTION OF MALARIA CASES ACCORDING TO SPECIES IN LOWER EGYPT AND CANAL AND SUEZ GOVERNORATES DURING 1949

Month		Total of Specimens	Total Positive	Rate %	Benign Tertain				Malignant Tertain			
					No.	New	Relapses	%	No.	New	Relapses	%
January	...	1,885	447	23.7	391	67	324	20.7	56	4	52	3
February	...	1,619	359	22.1	304	50	254	18.8	55	5	50	3.3
March	...	2,033	463	22.8	413	58	355	17.4	50	3	47	5.4
April	...	2,860	906	31.6	875	159	716	30.5	31	1	30	1.1
May	...	4,613	1,949	42.2	1,939	361	1,578	42.03	10	2	8	0.2
June	...	5,771	1,933	33.5	1,920	349	1,571	33.4	13	4	9	0.1
July	...	3,634	1,297	35.6	1,292	253	1,039	35.5	5	4	1	0.1
August	...	7,777	2,822	36.2	2,789	673	2,116	35.8	33	3	30	0.4
September	...	6,147	1,911	31.08	1,867	586	1,281	30.3	44	11	33	1
October	...	2,548	761	29.8	699	233	466	27.4	62	13	49	2.4
November	...	1,425	372	26	334	65	269	23.5	38	2	36	2.5
December	...	2,622	708	26	643	56	587	24.5	65	7	58	1.5
TOTAL		42,934	13,928	32.4	13,466	2,910	10,556	31.3	462	59	403	1.07

TABLE No. 116.— MONTHLY DISTRIBUTION OF MALARIA CASES ACCORDING  
TO SPECIES IN UPPER EGYPT AND THE SOUTHERN DESERT GOVERNORATE DURING 1949

Months	Total of Speci- mens	Total of Positive	Rate Per cent	Benign Tertian				Malignant Tertian			
				No.	New	Relap.	%	No.	New	Relap.	%
January ... ..	1,179	92	7·7	87	1	86	7·2	5	1	4	0·4
February... ..	1,094	80	7·2	78	3	75	7·1	2	—	2	0·1
March ... ..	1,663	145	8·7	142	8	134	8·5	3	—	3	0·18
April ... ..	1,816	184	10·1	181	7	174	9·9	3	—	3	0·1
May ... ..	2,312	303	13·1	295	25	270	12·7	8	—	8	0·44
June ... ..	2,092	180	8·6	174	3	171	8·3	6	—	6	0·28
July ... ..	1,520	122	8	120	—	120	78·	2	—	2	0·1
August ... ..	2,806	302	10·7	293	1	292	10·4	9	2	7	0·3
September ... ..	3,854	389	10·1	367	24	343	9·5	22	1	21	0·5
October ... ..	2,230	327	14	301	44	257	13·	26	6	20	1·1
November ... ..	3,449	241	6·9	222	21	201	6·4	19	1	18	0·5
December ... ..	1,766	97	5·4	74	11	63	4·1	23	1	22	1·3
TOTAL ... ..	25,781	2,462	9·5	2,334	148	2,186	9·	128	12	116	0·5

TABLE NO. 117.—NUMBER OF MALARIA CASES AND DEATHS NOTIFIED DURING 1948 AND 1949

Province or Governorate	New Malaria Cases				Difference		Relapsed Malaria Cases			
	1948		1949				1948		1949	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
Cairo ... ..	546	4	607	3	61	— 1	17	—	34	—
Alexandria ... ..	241	1	204	1	— 37	—	—	—	—	—
Other Governorates ...	529	1	201	3	—328	2	36	—	10	—
Behera ... ..	679	—	30	—	—649	—	1	—	—	—
Dakahlia ... ..	209	—	107	1	—102	1	7	—	6	—
Gharbia... ..	224	3	575	3	351	—	1	—	599	—
Menoufia ... ..	45	1	87	—	42	— 1	6	—	36	—
Sharkia... ..	478	4	110	1	—368	— 3	—	—	16	—
Kaliubia ... ..	1,068	1	230	1	—838	—	4	—	16	—
Giza ... ..	105	—	250	3	—145	3	—	—	—	—
Fayoum ... ..	120	1	82	—	— 38	— 1	1,398	—	611	—
Beni Suef ... ..	26	1	50	—	24	— 1	1	—	6	—
Minia ... ..	126	—	229	—	103	—	—	—	18	—
Assiut ... ..	10	—	32	—	22	—	—	—	—	—
Gerga ... ..	2	1	7	—	5	— 1	—	—	—	—
Qena ... ..	7	3	13	1	6	— 2	20	—	25	—
Aswan ... ..	29	2	4	—	— 25	— 2	3	—	15	—
TOTAL ... ..	4,444	23	2,818	17	—1,626	— 6	1,494	—	1,392	—



TABLE No. 118.— DISTRIBUTION OF ANOPHELES LARVAE EXAMINED BY PRINCIPAL STATIONS IN LOWER EGYPT DURING 1949

Province or Governorate	No. of Species	Anoph. Species				Other Species
		Pharoen.	Mult.	Sergenti.	Mauri.	
Western Desert ... ..	121	37	80	4	—	—
Canal ... ..	381	246	12	1	10	112
Behera... ..	16,794	2,513	—	—	1,659	12,622
Gharbia ... ..	330	244	18	1	29	38
Dakahlia ... ..	86	83	1	—	2	—
Sharkia ... ..	272	247	3	—	22	—
Menoufia ... ..	49	49	—	—	—	—
Kaliubia ... ..	60	49	11	—	—	—
<b>TOTAL LOWER EGYPT ...</b>	<b>18,093</b>	<b>3,268</b>	<b>125</b>	<b>6</b>	<b>1,722</b>	<b>12,772</b>

TABLE No. 119.— DISTRIBUTION OF ANOPHELES LARVAE EXAMINED BY PRINCIPAL STATIONS IN UPPER EGYPT DURING 1949

Province or Governorate	No. of Species	Anoph. Species				Other Species
		Pharoen.	Mult.	Sergenti.	Mauri.	
Gîza ... ..	52	52	—	—	—	—
Beni Suef ... ..	151	151	—	—	—	—
Minia ... ..	277	277	—	—	—	—
Assiut ... ..	63	63	—	—	—	—
Gerga ... ..	120	120	—	—	—	—
Qena ... ..	435	434	—	—	—	—
Aswan ... ..	295	156	139	—	1	—
<b>TOTAL ... ..</b>	<b>1,393</b>	<b>1,253</b>	<b>139</b>	<b>—</b>	<b>1</b>	<b>—</b>

TABLE No. 120.—NUMBER OF VILLAGES SURVEYED AND BIRKAS FOUND HARBOURING LARVAE OF ANOPHELES, AND CULEX PIPPIENS  
IN LOWER EGYPT AND CANAL GOVERNORATE DURING 1949

Province or Governorate	Station	No. of villages surveyed	No of Birkas examined	Positive Birkas for Larvae		Birkas Harboursing Anopheles Larvae						Birkas Harboursing Culex Pippiens		Remarks	
				No.	%	Pharoen.		Mult.		Sargenti		Other species		No.	%
						No.	%	No.	%	No.	%	No.	%		
Behera...	Idku ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Kafr el Dawar ...	2	3	—	—	—	—	—	—	—	—	—	—	—	—
	Damanhour ...	10	40	28	70	—	—	—	—	—	—	—	—	—	—
Gharbia ...	Fowa ...	2	2	2	100	2	100	—	—	—	—	—	—	—	—
	Dessouk ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Kafr el Sheikh ...	2	5	2	40	1	20	1	20	—	—	1	20	—	—
	Biala ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Mehalla el Kobra	7	11	6	54.5	—	—	—	—	—	—	6	54.5	—	—
Dakahlia ...	Faraskour ...	5	7	1	14.3	1	14.3	—	—	—	—	—	—	—	—
	Dekernis ...	1	3	2	67	1	33.3	—	—	—	—	—	—	33.3	—
Canal ...	Ismailia ...	9	91	91	100	89	97.8	4	5	—	—	3	33	—	—
	Suez ...	4	40	1	2.5	—	—	1	2.5	—	—	—	—	—	—
Sharkia ...	Belbeis ...	3	22	8	36.3	11	50	—	—	—	—	—	—	—	—
	Abu Kebir ...	1	2	—	—	—	—	—	—	—	—	—	—	—	—
	Inshas ...	4	12	2	16.6	2	16.6	—	—	—	—	—	—	—	—
Menoufia ...	Shebin el Kom ...	4	10	—	—	—	—	—	—	—	—	—	2	20	—
Kaliubia ...	Toukh ...	30	110	69	62.7	47	42.7	11	10	—	—	—	—	—	—
Western Desert ...	Baharia Oases ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Siwa ...	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Wadi el Natroun	1	77	77	100	26	33.7	51	66.2	—	—	—	—	—	—
GRAND TOTAL ...		85	435	289	66.1	208	47	68	15	—	—	10	23	3	0.6

TALBE No. 121— NUMBER OF VILLAGES SURVEYED AND BIRKAS FOUND HARBOURING EITHER LARVAE OF ANOPHELES OR CULEX PAPIENS IN UPPER EGYPT  
AND WESTERN DESERT GOVERNORATES DURING 1949.

Province or governorate	Station	No. of Villages Surveyed	No. of birkas examined	Positive birkas for larvae		Birkas Harbousing Anopheles Larvae						Birkas Harbousing Culex Papiens	
				No.	%	Phar		Mult		Surgenti		Other Species	
						No.	%	No.	%	No.	%	No.	%
Giza ... ..	Giza ... ..	44	196	142	.72	31	15	—	—	—	—	113	57.6
Beni Suef ... ..	Beni Suef ... ..	4	7	—	—	—	—	—	—	—	—	—	—
Minia ... ..	Minia ... ..	6	12	3	.25	3	25	—	—	—	—	—	—
Assiut ... ..	Assiut ... ..	11	81	21	25.9	21	25.9	—	—	—	—	—	—
Qena ... ..	Qena ... ..	3	8	—	—	—	—	—	—	—	—	—	—
GRAND TOTAL ... ..		68	304	166	54.6	55	.18	—	—	—	—	113	37



TABLE No. 122.— QUANTITIES OF LARVICIDE CONSUMED IN LOWER AND UPPER EGYPT DURING 1949

Province or Governorate	Name of Station	Pure D.D.T.	D.D.T With Malariol	Malariol	Paris Green	Controlled Areas
		Kilo	Kilo	Kilo	Kilo	m2
<b>Lower Egypt :</b>						
Behera ... ..	Idku ... ..	3.071	—	6,482	5,153.420	12,527,904
	Kafr el Dawar ... ..	57.500	—	576.500	232.875	1,799,086
	Damanhour ... ..	200.210	—	1,675.500	591.850	6,630,990
Gharbia ... ..	Fowa... ..	—	183 500	—	276.250	31,856,680
	Dessouk ... ..	49	—	163,270	489.128	4,283,466
	Kafr el Sheikh ... ..	29.500	—	—	742.500	6,335,651
	Biala ... ..	198.100	—	—	743.121	5,558,235
	Mehalla el Kobra ...	24.700	—	—	233	2,343,510
Dakahlia ... ..	Faraskour ... ..	—	—	—	1,095.912	4,571,082
	Dekernis ... ..	255	572.305	706	925.687	1,851,129
Canal ... ..	Ismailia ... ..	—	1,043	—	1,720	14,592,931
	Suez ... ..	—	—	983	1.323	17,014,860
Sharkia ... ..	Belbeis ... ..	84	2,142	—	275.400	47,93,069
	Abu Kebir ... ..	13	2.164	—	393	60,34,217
	Inshas ... ..	—	808.500	—	266.250	3,878,927
Menoufia... ..	Shebin el Kom ...	16.200	—	—	330.084	3,232,853
Kaliubia ... ..	Toukh ... ..	2.800	—	3,613.500	2,296.190	15,195,055
Western Desert	Baharia Oases ... ..	—	780	—	175	0,504,650
	Siwa ... ..	—	—	—	230.950	2,329,626
	Wadi el Natroun ...	—	1,903.500	—	—	1,495,600
TOTAL ... ..		4,001.010	7434.968	14,199.770	17,457.617	147,830.520
<b>Upper Egypt :</b>						
Giza... ..	Giza ... ..	14.467	—	12.481	—	9,794,000
Beni Suef ... ..	Beni Suef ... ..	117 646	—	2.290	306	6,912,843
Minia ... ..	Minia ... ..	36,368	—	873.955	2,795.215	25,093,180
Assiut ... ..	Assiut ... ..	57.950	200	—	843.485	2,958,037
Gerga ... ..	Souhag ... ..	47.800	—	—	521	1,589,589
	Gerga ... ..	28.800	—	—	245.900	2,169,440
Qena ... ..	Nag' Hammadi... ..	—	457.898	—	1199.354	8,412,750
	Qena ... ..	108.433	—	1,425.715	141.570	6,579,339
	Luxor ... ..	—	160.250	957	617.400	5,163,971
	Mata'na ... ..	26.566	694.363	—	256.900	2,659,869
Aswan ... ..	Kom Ombo ... ..	41.500	—	1,095.311	1477.400	10,642,126
	Aswan ... ..	—	522.021	—	385.553	4,622,662
TOTAL ... ..		14,932.063	2,034.532	16,835.271	8429.777	86,502.806
GRAND TOTAL ...		18,903.073	9,469.500	31,035.041	25,887.394	234,333.326

TABLE No. 123.— NUMBER OF WARNINGS AND P.Vs. CONTRAVENTION DRAWN UP BY MALARIA UNITS AND THEIR BRANCHES  
IN UPPER AND LOWER EGYPT DURING 1949

Province or Governorate	Unit	Burrow Pits or Puddles		Filling in or covering over disused wells or sakias and Abolishing pumps		Clearing Drains or miskas		Clearing Ponds or Marshes		Prohibition of Rice and Sugar cane		Emptying or Covering Cesspits	
		Ws.	P.Vs	Ws.	P.Vs	Ws.	P.Vs	Ws.	P.Vs	Ws.	P.Vs	Ws.	P.V.s
LOWER EGYPT	Canal ...	...	...	...	...	...	...	...	...	...	...	...	...
	Gharbia ...	...	...	...	...	...	...	...	...	...	...	...	...
	Behera...	...	...	...	...	...	...	...	...	...	...	...	...
	Menoufia ...	...	...	...	...	...	...	...	...	...	...	...	...
	Western Desert ...	...	...	...	...	...	...	...	...	...	...	...	...
	Suez ...	1	—	1	—	7	10	7	—	—	—	—	—
	Ismailia ...	2	—	—	—	94	—	—	—	—	18	—	—
	Mehalla el Kobra	—	—	—	—	—	—	—	—	—	—	—	—
	Kafr el Sheikh	—	—	1	—	—	—	—	—	—	326	—	—
	Damanhour	1	—	—	—	—	—	—	—	—	—	—	—
UPPER EGYPT	Menoufia ...	5	—	—	—	—	—	—	—	—	—	—	—
	Western Desert ...	2	—	2	—	—	—	—	—	—	—	—	—
	TOTAL ...	11	—	4	—	101	10	7	—	—	344	—	—
	Giza ...	—	—	—	—	—	—	45	12	—	2	—	—
	Fayoum ...	4	4	—	—	9	9	—	—	—	—	—	—
	Beni Suef ...	28	9	3	2	—	—	—	—	—	—	27	1
	Minia ...	—	—	—	—	30	11	12	—	—	—	—	—
	Assiut ...	3	—	—	—	—	—	—	—	—	—	—	—
	Qena ...	97	—	131	—	—	—	—	—	—	—	—	—
	Luxor ...	2	—	—	—	—	—	—	—	—	—	—	—
TOTAL ...		134	13	154	2	39	20	57	12	—	2	27	14
GRAND TOTAL ...		145	13	158	2	140	30	64	12	—	346	27	14

TABLE No. 124.—HOSPITALS AND HEALTH UNITS, ETC., AND NO. OF ROOMS SPRAY PAINTED  
WITH INSECTICIDE BY MALARIA STATIONS IN EGYPT DURING 1949

Station	No. of Hospitals and Health Units	No. of Rooms	Insecticide Employed	Quantities Consumed (Gallons)
LOWER EGYPT				
Suez ... ..	4	225	Liquid (D.D.T.) ...	704
Mehalla el Kobra ... ..	7	220	„ „ ...	138
Biala ... ..	12	96	„ „ ...	117
Dessouk ... ..	4	39	„ „ ...	64
Fowa ... ..	4	36	„ „ ...	52
Damanshour ... ..	16	390	5 % D.D.T. Solution	1,000
Faraskour ... ..	12	431	D.D.T.in Kerosene	1,274
Dekernis ... ..	22	377	„ „ ...	305
Idku ... ..	28	192	„ „ ...	230
Abu Kebir ... ..	2	26	„ „ ...	12
Shebin el Kom ... ..	4	50	„ „ ...	80
Belbeis ... ..	11	301	„ „ ...	850
<b>TOTAL LOWER EGYPT ... ..</b>	<b>126</b>	<b>2,383</b>	— —	<b>4,806</b>
UPPER EGYPT				
Giza ... ..	7	106	Liquid (D.D.T.) ...	150
Beni Suef ... ..	9	729	„ „ ...	400
Minia ... ..	22	164	„ „ ...	180
Assiut ... ..	21	345	„ „ ...	14
Gerga ... ..	3	230	„ „ ...	124
Souhag ... ..	8	68	„ „ ...	208
Qena ... ..	18	626	„ „ ...	375
Mataana ... ..	7	91	„ „ ...	56
Luxor ... ..	8	158	„ „ ...	80
Nag Hammadi ... ..	6	16	„ „ ...	40
Kom Ombo ... ..	10	194	„ „ ...	176
<b>TOTAL UPPER EGYPT ... ..</b>	<b>119</b>	<b>2,727</b>	— —	<b>1,803</b>
<b>GRAND TOTAL ... ..</b>	<b>245</b>	<b>5,110</b>	— —	<b>6,609</b>



TABLE No. 125. —QUANTITIES OF DIFFERENT DRUGS CONSUMED FOR TREATMENT  
OF POSITIVE CASES IN LOWER AND UPPER EGYPT DURING 1949

Kind of Drugs	Consumed Drugs in Tablets		GRAND TOTAL
	Lower Egypt	Upper Egypt	
Atebrine ... ..	225,551	144,385	369,936
Quinin 5 grs. ... ..	24,438	2,529	26,967
„ 2 „ ... ..	12,910	1,397	14,307
„ Chocolate ... ..	7,872	3,307	11,179
Plasmochine L. Comp. I cm. ... ..	1,636	98	1,734
„ Sm Comp. $\frac{1}{2}$ cm. ... ..	2,762	1,443	4,205
Paludrine ... ..	2,332	—	2,332
Blaud's Pills ... ..	53,724	56,450	110,174

The following are details of the allocations and expenditures on Malaria Control;

I. Credits allocated for the Malaria Section during the fiscal year 1949-1950 ;—

a. General control	L.E. 82,513
b. A. Sergenti campaign in Fayoum	30,987
c. Aerial control	30,000
d. Mosquito control in Cairo	41,000
e. Sanitation of habitations	2,000
	<u>186,500</u>

II. Expenditures during the same year:

a. General Control	73,329
b. A. Sergenti Campaign in Fayoum	29,064
c. Aerial Control	17,693
d. Mosquito control in Cairo	26,635
e. Sanitation of habitations	1,996
	<u>148,735</u>

III. Expenditures of Central Administration

(Salaries and Allowances)	43,565
	<u>192,300</u>

## Chapter XVIII.—INSECT CONTROL

### PRELIMINARY STUDIES ON HOUSEFLIES IN EGYPT

The housefly in Egypt had passed the stage of being a nuisance and had become a dangerous menace to human health. During the cholera epidemic of 1947, the Ministry of Health organized an anti-fly campaign as an important part of its programme for controlling the disease. Since then, due attention has been paid to the importance of more fundamental studies on the problem of flies, of which the estimation of the fly-population density is a prime consideration.

#### 1. Methods of Estimating Housefly Population Densities

With the advent of DDT and other newer insecticides, the control of houseflies and other pests has been revolutionized. For the successful evaluation of such insecticides, it has been necessary to devise an adequate method of sampling the density of housefly populations. The variability of the adult habitats and the nature of their congregations make the standardization of adequate and suitable sampling for statistical analysis practically impossible.

##### 1.1 “Fly-grid” method.

Scudder devised a new technique for sampling housefly populations by means of what he called the “fly grill”. The grill, which is made of wooden strips and which neither attracts nor repels flies, is placed at a point where flies are concentrated; the flies which collect on the grill can then be counted. Scudder’s technique was adopted in Egypt at the time of the cholera epidemic of 1947, when DDT formulations were used extensively to control houseflies.

(The name “fly grill” was changed to “fly grid”.)

Certain modifications of the original technique were introduced by workers in this department. Of these we may mention the following :

(1) Establishment of a certain number of stations in which three grid counts are made at one placement. The stations were chosen after initial search for places with maximum concentrations of flies, and they were never changed.

(2) Introduction of outdoor and indoor counts to be made at nearly the same time in each station.

(3) Use of a grid of one size, 80 cm×80 cm (15 strips), for outdoor and indoor counts (fig. 1).

FIG. 1. THE “FLY-GRID”





(4) Search in each station for the maximum concentrations of flies within a radius of 5 yards (4.57 metres) from the centre of the station.

(5) Averaging the three counts of each grid placement to give an index, and obtaining from the averages a mean to represent an index figure of the fly population of a certain locality.

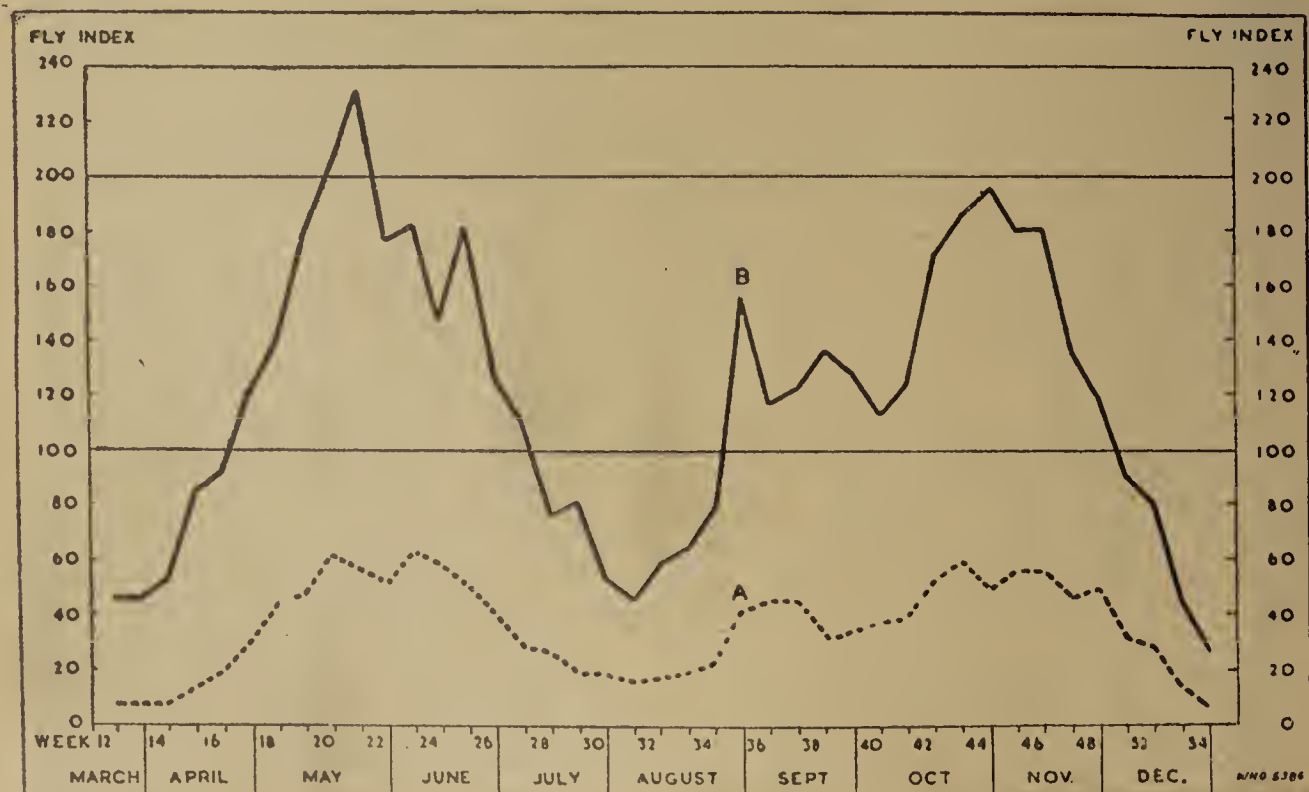
(6) Daily counts at hourly intervals.

On revising the data obtained from the modified technique, we noted that this system was not satisfactory because it contradicted Scudder's fundamental theory and implied random sampling rather than sampling concentrations of flies. Fixing permanent stations of a limited space fails to illustrate the general fly population of a certain locality. Some of these stations may lose their attractiveness, thus giving very low counts, while obvious increases in concentrations of flies can easily be seen in other parts of the village. This is very important in the evaluation of fly-control measures. For reasons stated above we established, in most of our centres, new zones, such as lanes and squares, in which the inspector looks for the maximum concentrations of flies where grid counts should be taken, as Scudder originally proposed. For indoor readings, too, the search covers the whole house until a higher count is obtained. The choice of such zones was also based on our initial observations of places in which flies tend to congregate, and a continuous search is being made in order to replace any station which may lose its attractiveness.

For obtaining an index, the highest figure of three counts at each grid placement is always considered, and from these maxima the mean (i.e., the index) is obtained. In order to compare the results obtained with the modified Scudder technique and with our present system, we decided to use both in one village, Talbia (Giza province). The results (Fig. 2) show that our present system, which is based on searching for concentrations, gives higher counts. This, as has already been advanced, is extremely advantageous in the evaluation of control measures, since the other system is much less sensitive.

As regards time of observations, we find that three daily readings taken at different hours, such as 9-10 a.m., 12-1 p.m., and 3-4 p.m., can represent the diurnal variation satisfactorily. Consecutive counts made at short intervals (10.30-11.30 a.m. and 12-1 p.m.) showed very small variation.

Fig. 2 Weekly grid indices of fly population at Talbia, March- December 1949, Showing the results obtained by (a) The modified Scudder Technique, and (b) The present system

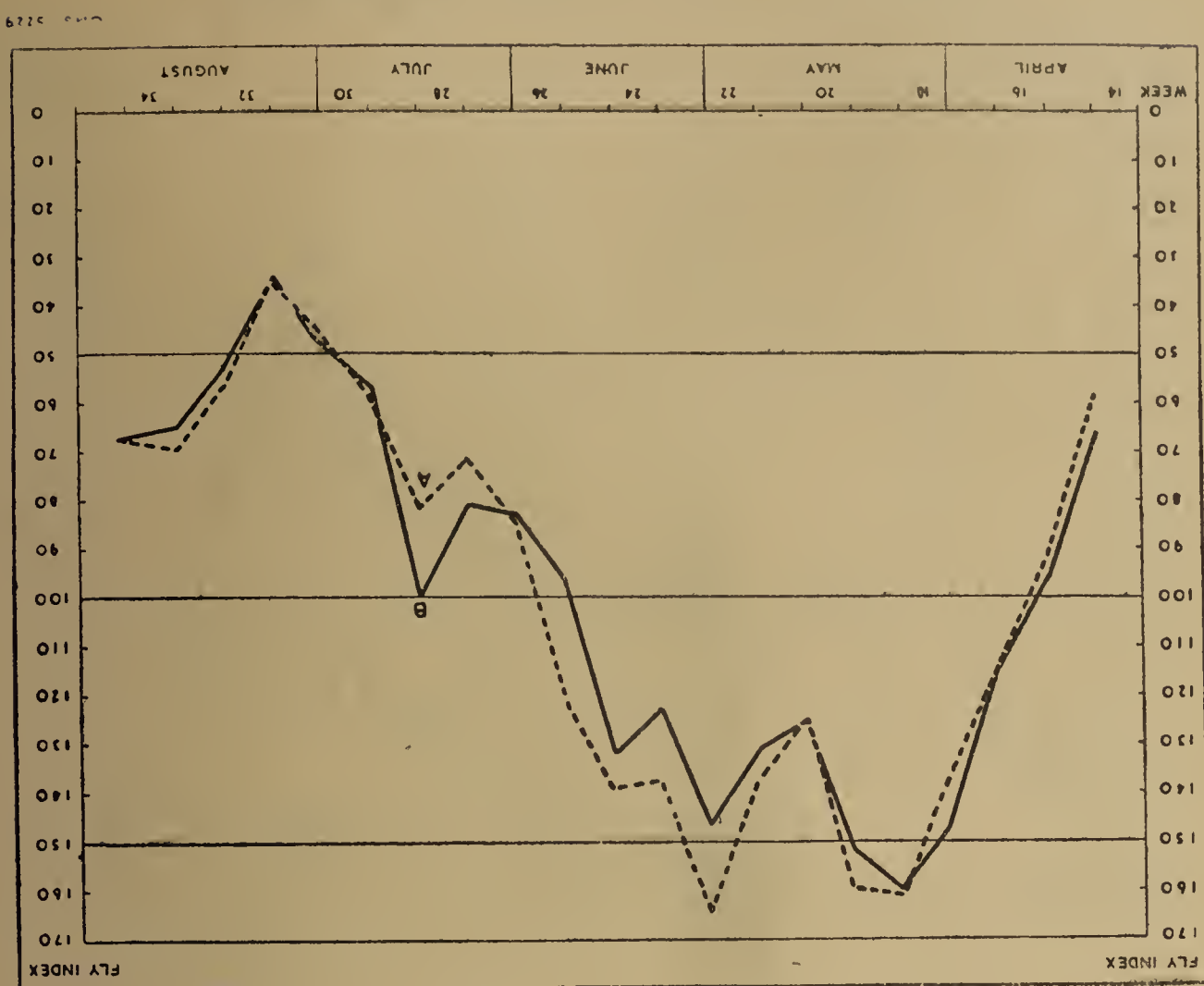


A — Modified Scudder technique

B — Present system



Fig. 3. Weekly grid indices of fly population at Abul Nomros, April-August 1949  
Showing results of consecutive counts at short intervals



A — Counts made between 10.30 and 11.30 a.m.  
B — Counts made between 12 and 1 p.m.

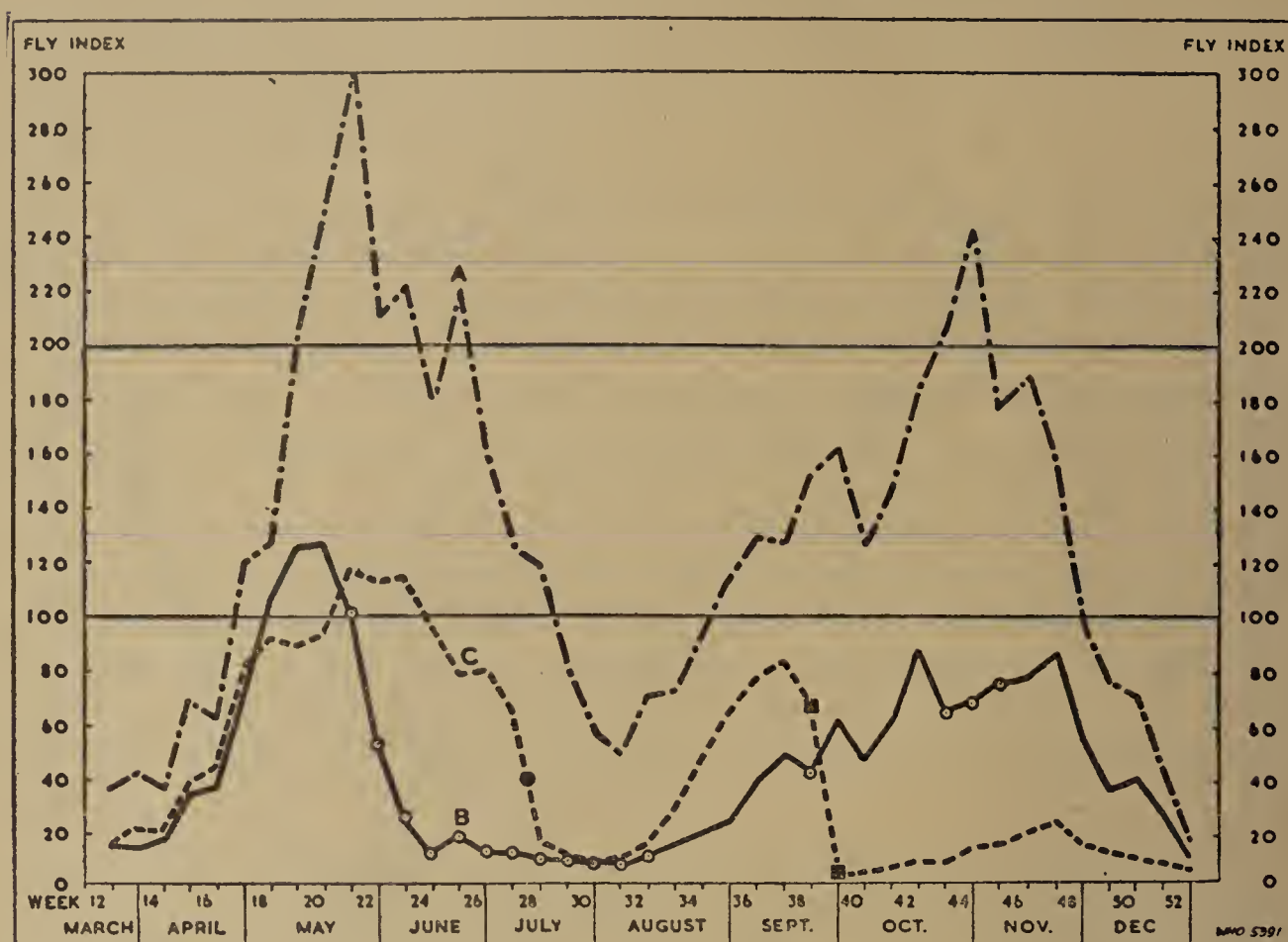
The question of the relation between the number of grid placements and the size of the locality is yet unsolved. Scudder himself did not indicate the number of placements from which he always selected a constant number of counts to produce an index for a certain area. For rural areas, however, we were able to evolve an arbitrary system for deciding the number of grid placements. This was based on the total number of houses in a village, the rate being 10-15 grid placements for the first 1,000 houses, or less, and five additional placements for every 1,000 houses thereafter. This classification is not absolutely rigid since it was found that the number of grid placements in some cases was not correlated with the size of the locality. This became apparent in large villages and cities where attractive foci are concentrated at only a few centres.

Regarding the efficiency of the grid method, it should be noted that no claim is made to absolute accuracy in our estimates produced by this method, in which a personal factor is involved, i.e., the honesty and efficiency of the inspectors who count the flies on the grid. Even with well trained persons, counts sometimes vary greatly. In our opinion, these estimates have no statistical significance apart from providing a general comparison of the relative abundance of the fly population of a certain locality throughout the year. In the same way, fluctuations in fly density during treatment campaigns can be studied (fig. 4).

### 1.2 Other methods:

As regards other methods used in determining the density of fly population, reference may be made to our experience with tanglefoot paper and bait-traps. In view of the fact that flies tend to rest on hanging cords, wires, frames, etc., we tried suspending tanglefoot paper in the same manner, but catches obtained from this paper did not give a good representation of the circulating population. Even when the tanglefoot paper was placed in fly concentrations, only odd numbers were caught. We placed strips of tanglefoot paper on the fly grid. We also tried placing small portions of putrefied chicken entrails and bits of feathers on glazed tiles which were smeared with tanglefoot, but catches were representative of the circulating population only when these tiles were placed near concentrations found in shade.

Fig. 4. Weekly grid indices of fly population at Talbia, Konayesa, and Tersa, March-December 1949  
Showing the effect of treatment with insecticides



- A = Talbia  
B = Konayesa  
C = Tersa  
● = Wall-spraying with 7.5% DDT emulsion  
○ = Treatment of breeding places with gammexane dust (4% BHC)  
■ = Wall-spraying with gammexane suspension

Trials with bait-traps were carried out by previous workers in this department who reported the following difficulties :

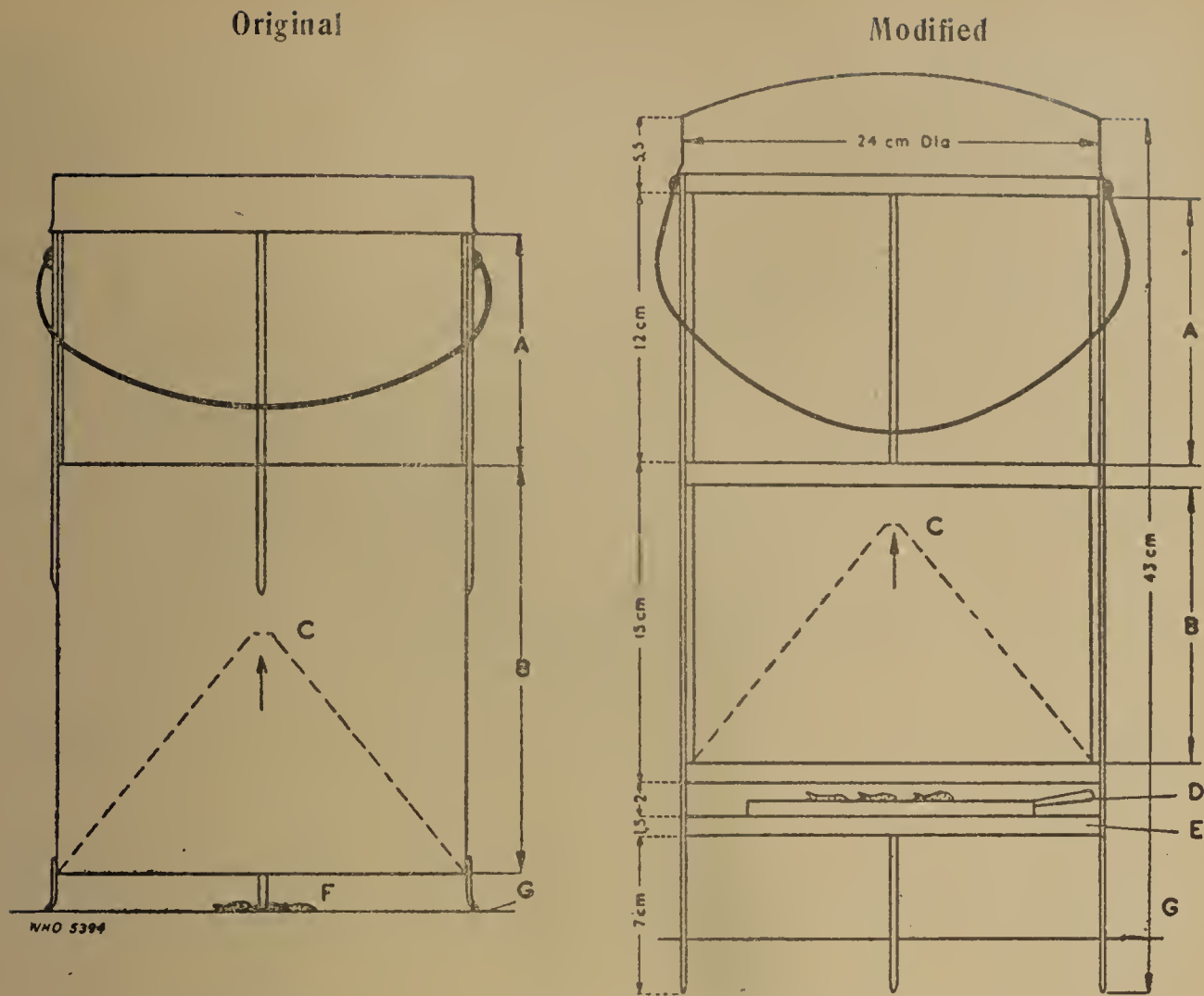
- (1) knocking-down of traps by wind or children ;
- (2) removal of bait by cats and dogs ;
- (3) rapid desiccation of bait ;
- (4) difficulty of supplying the traps with bait of uniform attractiveness.

To overcome the first three difficulties, certain modifications were introduced into the construction of the original trap (fig. 5). In the old trap, the bait was placed on the ground, which caused unduly rapid desiccation. By placing the bait on a circular tray, it can be kept moist for longer periods. Moreover, the trap is fitted with a bottom which carries the tray. Immediately above the bottom there is a circular slot which serves as a fly passage and through which the tray is introduced. The width of this circular slot is about 2 cms, a space which does not permit the interference of cats and dogs. The new trap has been designed to be fixed into the ground in order to avoid removal by the wind or children.

To supply the traps with bait of uniform attractiveness, a large stock of well-putrefied fish sufficient to service the traps for several weeks was maintained ; but it was discovered later that, as decomposition advanced, the number of flies caught decreased. In view of this, a weekly supply of fish had to be added a day or two before operation (fig. 6). It should be emphasized that the choice of fish as bait was based on previous trials with several other baits; it was found that fish could compete with human faeces, which are also highly attractive to flies. It is hoped, however, that, through further investigation, a technique for producing a bait of uniform attractiveness may be devised.



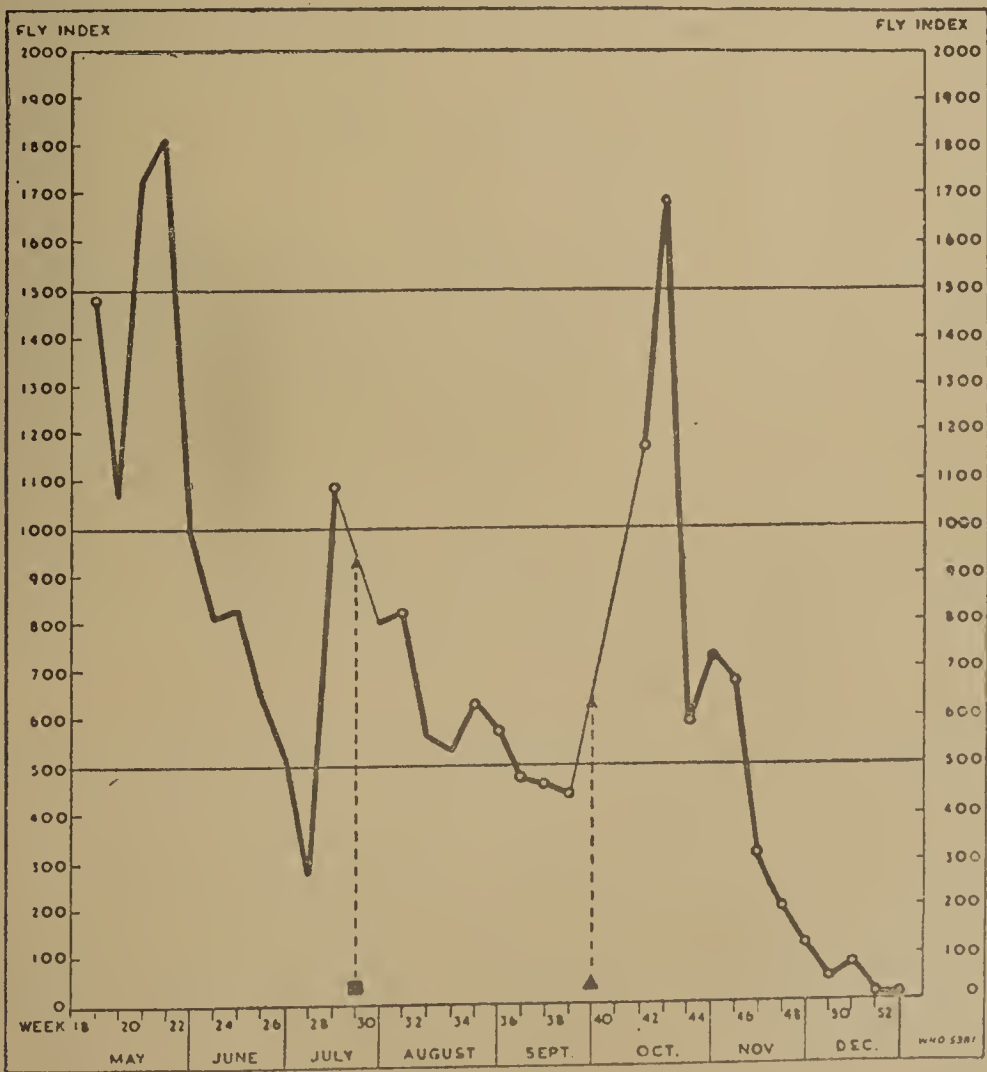
Fig. 5. the bait-traps



A = Wire gauze chamber  
B = Zinc chamber  
C = Cone of wire gauze  
D = Tray carrying bait

E = Base of the trap  
F = Fish bait on the ground  
G = Ground

Fig. 6. Weekly bait-trap indices of fly population at Cairo sewage farm, Gabal Asfar, May-December 1949, showing the effect of treatment with insecticides



○ = New supply of putrefied fish  
■ = Wall-spraying with 5% DDT emulsion  
▲ = Treatment with 4% chlordane solution in kerosene



## 2. Preliminary Results of Estimations of Housefly Population

From our grid counts in rural areas (Giza province) (fig. 7 and 8), it appears that there was a marked rise in the fly population starting about the middle of April. From the end of May there was a steady decline until the middle of August when the population started to increase again, forming an autumn peak.

The low population of midsummer was generally observed in rural areas where natural manure (a favourable breeding medium) is rapidly consumed in fertilizing summer crops, such as maize. Thus it may be possible to assume that, apart from the probable effect of heat, the reduction in the fly population in summer may be correlated with the reduction of this favourable breeding medium. Our survey of breeding places in Konayesa (Giza province) revealed the following variations in the number of manure heaps : June, 352 ; July, 159 ; August, 272 ; September, 351.

Fig. 7. Weekly grid indices of fly population at Talbia, March-December 1949, Showing indoor and outdoor counts



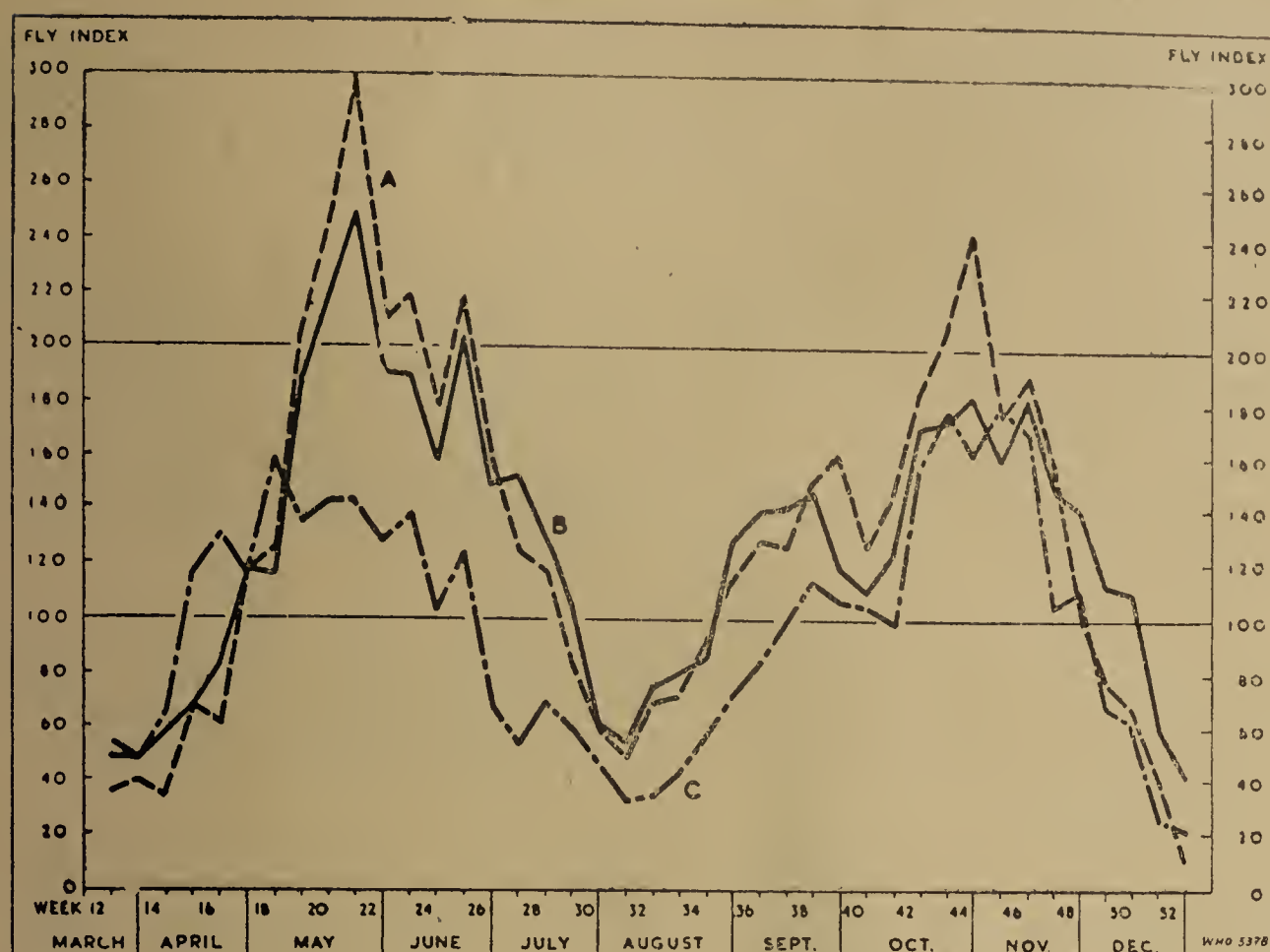
A = Indoor counts  
B = Outdoor counts

As regards the influence of heat on summer populations of flies, we tend to believe that it affects the immature stages rather than the adult insects and that this effect is indirect in that it causes rapid desiccation of the breeding media.

According to our survey of breeding places in rural areas, the amount of positive breeding media in July and August was much lower than that of June (table No. 126). Fly populations in summer are subject to various changes, not least of which are prolonged heat waves when the large concentrations of flies are to be found indoors. As shown in fig. 7, the outdoor population started to decline about the last week in May, while the indoor population remained higher. With the advent of the cooler weather of autumn, another inversion was noted, giving higher counts outdoors again.

As illustrated in fig. 8, in Talbia the summer afternoon populations were the lowest. This observation was again confirmed by our fly counts in the Arab district of Port Said (fig. 9). According to our experience, in summer flies tend to shelter on foliage during the hottest hours of the day and from sunset onwards,

Fig. 8-Weekly grid indices of fly poplation at Talbia, Macrh-December 1949  
Showing counts at different hours



- A = Counts made between 9 and 10 a.m.  
B = Counts made between 12 and 1 p.m.  
C = Counts made between 3 and 4 p.m.

Fly populations at coastal areas in the northern part of the country, such as Port Said, seem to be dense throughout the summer. In urban districts where suitable breeding media are always available, flies also seem to remain relatively thick throughout the hot season. All these observations, however, need further confirmation.

TABLE No. 126.—RESULTS OF EXAMINATION OF POSSIBLE BREEDING PLACES FOR  
FLIES IN TALBIA, JUNE-OCTOBER 1949

Month	Percentage of breeding places found positive in						
	manure heaps	latrines	stables, pigsties, etc.	fowl pens	garbage	fuel cakes	damp soil
June ... ..	66	63	64	31	30	87	43
July ... ..	16	49	38	28	23	66	20
August ... ..	50	21	40	12	27	64	15
September ... ..	33	30	19	11	22	37	14
October ... ..	48	31	33	3	27	51	16

### 3. Trials of Housefly Control in Egypt

In Egypt, the presence and access of various fly-breeding media, together with inadequate application of sanitary measures, are the main causes of the extreme abundance of housefly populations. Almost any place in an Egyptian village could be a potential breeding place for flies : manure heaps, animal sheds, and latrines are the principal breeding places in villages ; garbage is the most common source in towns, though in slum districts, animal sheds and stables, and poor sanitation also provide fertile breeding media.



It is commonly accepted that the effective control of houseflies is dependent on the proper application of preventive measures. By preventive measures we mean the proper storage of manure, prompt disposal of garbage and other breeding media and, in general, the adequate application of principles of sanitation. Unfortunately, in our country the proper application of sanitary measures is slowed down by many local difficulties. Therefore, we are forced at present to accept conditions as they are and to resort to chemical control extensively as the quickest relief from these pests.

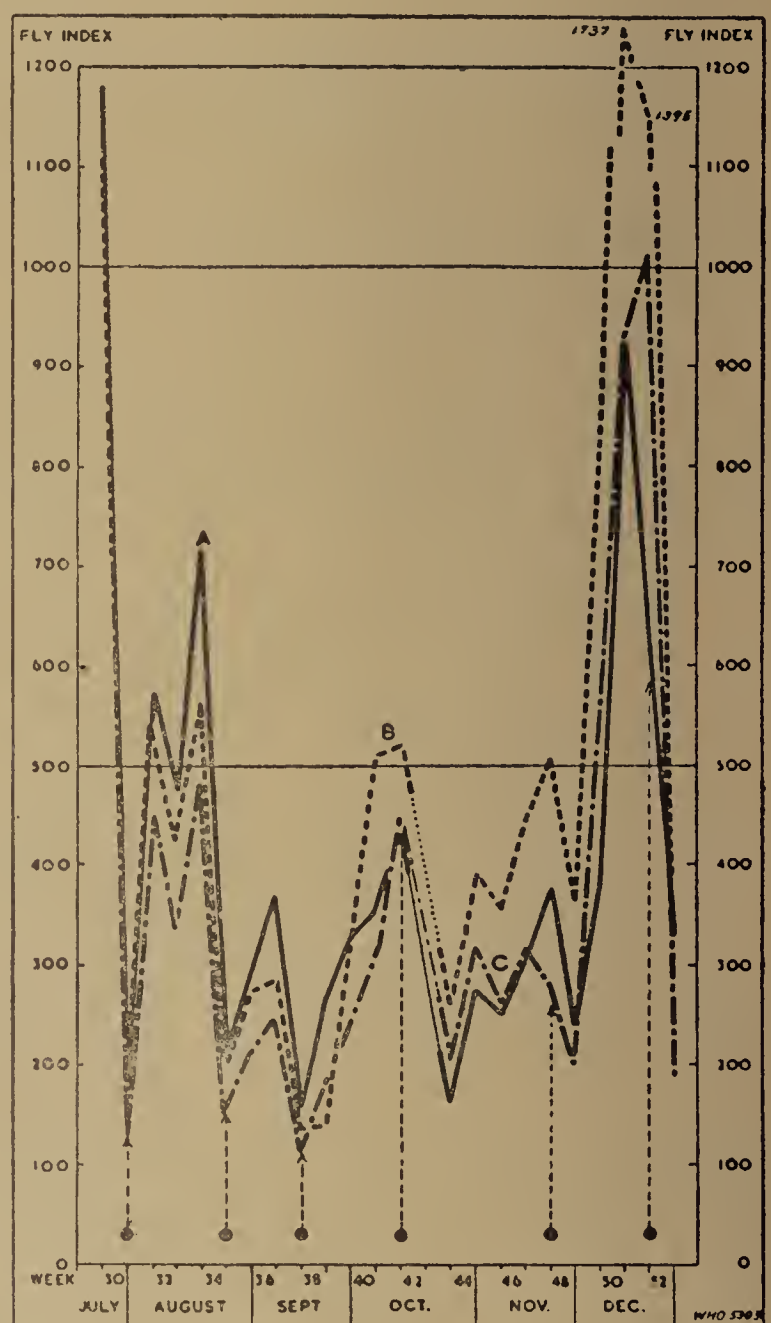
We have utilized DDT formulations as residual sprays on walls inside houses and other buildings, but we have not found this method of control satisfactory. DDT formulations were also tried in two of our experimental centres and proved unsuccessful.

One of our experimental centres was Tersa (Giza province), a village of about 600 houses built of mud bricks. The whole village was spray-painted, about the first week in July 1949, with a 7.5. per cent DDT emulsion at a rate of 3gs. per square metre applied on walls from the inside only.

With this residual spray it was hoped that the insecticide would remain effective for at least 8 to 10 weeks, thus depressing or retarding the autumn peak. But the fly population of Tersa, like that of untreated villages (see above), started to increase again from the middle of August (fig. 4). This indicates that the effect of the DDT residual spray probably did not last for more than 6 weeks, and it might have been less.

The other experimental centre was the Cairo sewage farm at Gabal Asfar, where, about the middle of July 1949, the stony walls of the area were spray-painted with 5 per cent DDT emulsion at a rate of 2gs. per square metre. Only minor reduction resulted (fig. 6), and this was further evidenced by complaints which we received from the farm authorities, who indicated that flies were still abundant after the treatment. It must be emphasized here that the principal breeding media in that locality are the drying beds where sludge is exposed to natural drying. Larvae can easily be destroyed in these beds by periodical flooding. According to our observations in June and July, the flooding operations were not well attended to, and flies bred there prolifically. Later, more care was given to the flooding, and consequently lower population was noted in August and September.

Fig. 9 Weekly grid indices of fly population at Port Said (Arab District), July-December 1949, Showing counts at different hours and the effect of treatment with gammexane



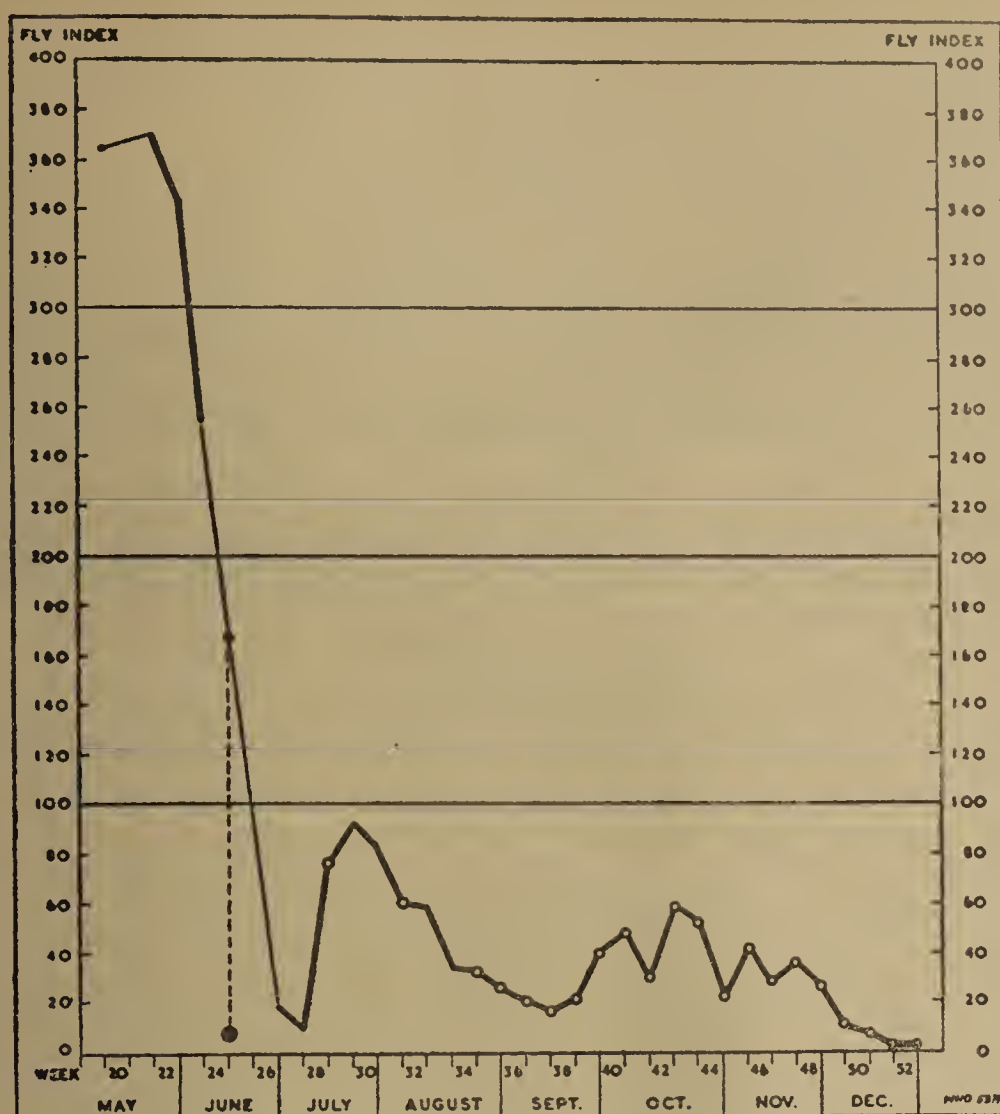
- A = Counts made between 9 and 10 a.m.
- B = Counts made between 12 and 1 p.m.
- C = Counts made between 3 and 4 p.m.
- = Treatment of breeding places with gammexane dusts (4% and 20% BHC)

The failure of DDT residual sprays may, in our opinion, be attributable to three main factors :

- (1) the presence of DDT-resistant strains ;



Fig. 10. Weekly Bait-Trap indices of fly population at Inshas farms, May-December 1949, Showing the effect of treatment with gammexane



(2) the inability of residual films to cope with the dense populations produced by potential breeding places ;

(3) *Musca domestica vicina* seems to have different habits in Egypt from elsewhere.

We have noted from repeated observations that the fly in its daily activities shows a marked preference for horizontal surfaces and that the number of flies which contact walls is almost negligible. According to a few observations, we tentatively assume that the preferential resting and sheltering place in summer is foliage.

On account of what has been mentioned about the fly preference for horizontal surfaces, we may suggest that controlling flies with residual sprays might prove successful if insecticides which have fumigant action, such as benzene hexachloride (BHC) or chlordane, were used. However, these insecticides are no more effective than DDT in heavily infested areas. This came to our notice at the Cairo sewage farm, where a 4 per cent kerosene solution of chlordane applied about the end of September 1949 was ineffective ( fig. 6).

Our experience with BHC is illustrated in fig. 4 and 10. The first experiment was made about the second week in June 1949, at Inshas farm (Sharkia province), which is a typical rural area with a moderate fly population. The stone houses of that area were painted with a 6 per cent suspension of BHC in water at a rate of 40 ml per square metre. (The suspension was prepared from a wettable powder containing 6.5 per cent gamma - isomer). A considerable reduction of the fly population was noted immediately after treatment (fig.10). The population remained low throughout the summer, but this may be attributable to the use of natural manure on summer crops, as mentioned above. Therefore, the actual residual effect of BHC spray in Inshas could not be exactly traced ; however, the retardation of the autumn peak provides a very interesting observation which may be compared with our experiment with DDT residual spray in Tersa (page 170). Later, a second experiment was made in Tersa with the same 6 per cent suspension of BHC sprayed on walls about the end of September 1949. As illustrated in fig. 4, this treatment was effective in depressing the autumn peak, and its effect lasted for about six weeks.

Due attention was paid to treatment of fly-breeding places with insecticides. By treatment of breeding places we mean covering the surface of the breeding medium with a thin layer of the insecticide. This ensures successful destruction of gravid females, but killing of larvae is fortuitous since it only happens when the insecticide gets into cracks and crevices of the breeding medium. Treatment of the breeding places alone was tried in a village in Giza province, Konayesa, and again in Port Said, accompanied in the latter by direct attacks on adult flies by means of ground fogging and DDT solutions with pyrethrum. Gammexane dusts were the only available material at the outset of this investigation. In Konayesa (fig. 4), dusting of actual and potential breeding places was carried out at weekly intervals, from May 26, 1949 until the second week in August, with gammexane dust containing 4 per cent BHC (0.5 per cent gamma-isomer). The arrangements of weekly application of gammexane dust in Konayesa were based on our estimates of the population after the first, second, and third treatments, when the population started to build up towards the end of the week following every treatment. It is surprising that gammexane dusts in Konayesa, which were applied during the autumn, did not show an appreciable effect on fly populations, while in the spring the effect was markedly evident.

In Port Said, too, all breeding places were treated with gammexane dusts containing 4 per cent and 20 per cent BHC. (Owing to local difficulties, dusting was carried out at nearly monthly intervals). As a result of these control operations in Port Said, counts of the week following the first treatment revealed considerable reduction in the fly population (fig. 9). This reduction amounted to 69 per cent, 85 per cent and 98 per cent of the original population. For maintaining such a low level, the same control measures should have been repeated periodically every 10 to 15 days. The sudden rise of the fly population in December should be noted. It is probably due to the low dose of the preceding treatment which was made about the third week in November.

Regarding the costs, those of the first treatment were about L.E. 300, i.e., approximately 0.2 piastre per capita (Port Said population is about 170,000). Further investigation is being carried out in the direction of adjusting the doses and the intervals after which periodical treatment should be repeated. It is hoped that the greatest reduction in the fly population at minimum costs will be achieved.



## Chapter XIX.—BILHARZIA SNAIL DESTRUCTION

### 1. REVIEW

In the 8 years since its establishment, the Snail Destruction Section has initiated control in as many provinces, as well as in the infested oases of the Libyan Desert. This involves a perennially irrigated area exceeding 2,000,000 feddans\* and containing over 100,000 kilometres of streams, of which at least 1/3 ought to be regularly treated.

It is felt that, after this quick expansion, a period of consolidation and intensification of measures will be needed in order to achieve satisfactory control. So far insufficiencies on all levels and dilution of our efforts have not permitted full control, but within the measure of our effort, results have been encouraging.

In the following a review is given of our aims, policies and procedures.

#### (1) *Surveys* :

*Net-method.* The dipping of snails by net at stations is extensively used. It is a suitable method for the rapid evaluation of the heavy snail infestations prevalent in the Egyptian streams, of which we cannot hope, at present, to treat but the more important. As an example of the extent of these recurrent surveys we are quoting figures from the general spring survey of 1949 : 99,800 kms. of streams were surveyed of which 29,838 were found infested ; 8,637,970 dips were taken, thereby dipping out 399,187 *Bulinus* snails, 189,231 *Planorbis* and 586 *Limnaea caillaudi*.

*Trap-method.* In order to detect lower levels of infestation, and for accurate checking during the year, palm-leaves are placed below water level and re-inspected for attached snails several days later. This method is important but of limited use, on account of the time and effort involved. Main feeding streams, negative by net, are re-surveyed with traps as a routine measure. The scope of these trap surveys is illustrated for the spring of 1949 as follows : 4,529 kilometres were surveyed of which 2,456 were found infested ; 206,926 palm leaves were used and the snails trapped were 28,441 *Bulinus*, 555 *Planorbis* and 193 *Limnaea*.

It must be understood that many more snails could be found in similar surveys later in the year, but indications obtained in the spring fully serve their purpose of guiding priorities in treatment operations.

#### (2) *Clearance* :

Clearance of streams from vegetation, which is often indispensable to permit the dragging of the bags of  $\text{CuSO}_4$ , is widely used whenever copper sulphate is not available in quantity, as it reduces the amount of sulphate necessary for killing snails. It is never to be forgotten that clearance also removes a large number of snail eggs, which are not killed by  $\text{CuSO}_4$ , at the concentration sufficient to kill snails.

Regular competent clearance of small distributaries would seriously impair their function as snail nurseries, but the task is beyond the material possibilities of the section.

During 1948, 12,200 kms., or about 85 per cent of the lengths sulphated, were prepared by clearing, the hired labour used amounting to 304,394 man/days.

#### (3) *Sulphation* :

*Closed-stream method.* The routine method of sulphation aims at a uniform concentration of about 15 - 20 p.p.m. in the whole volume of water of a stream, which is left

\* 1 Feddan = 4,200 m<sup>2</sup>



to act for several days. For this purpose close dovetailing with the irrigation water schedules is necessary as we have to dam a stream and to fill it up during its low or dry rotation. The difficulties of co-ordination have been considerable and in the case of main feeders, often unsurmountable.

*Open-stream method.* To obviate these difficulties, a method for sulphating running streams was evolved, whereby only the shallow and weedy marginal strips, with low current velocities, which harbour the majority of snails, are sulphated. A group of men, posted 50 m. apart, dissolve each 4 kg. bags of copper-sulphate, suspended from a stick, by walking to and fro in the length allotted to them. The group works towards the intake, at the highest water level. Each man can treat 6-800 m. daily. The method is convenient whenever there exists a shortage of labour, time and especially of copper sulphate, and was used extensively in Giza, Qena and Kaliubia Provinces.

#### *Sulphation Work During 1948 - 1949.*

The section sulphated about 20,000 separate streams or portions of streams, corresponding to about 14,000 kms., using 750 tons of copper sulphate and employing 56,765 man/days of hired labour; 5 per cent of these streams were sulphated twice. The section believes, however, that really effective permanent snail control cannot be achieved with less than 4 applications a year.

Generally speaking  $\frac{1}{3}$  of the infested numbers or  $\frac{1}{2}$  of the infested lengths were sulphated.

#### *(4) Annual schedule :*

The bi-annual schedule of two general surveys yearly at snail population peaks followed by sulphation has been abandoned and replaced by a system postulating one general survey in spring, followed by continuous treatments and checking of streams. It was also decided to pre-date the beginning of the survey by one month in order to be able to begin treatment at the spring peak of snail population.

## II. LEGISLATION

Law No. 29, "Relative to the extermination of the molluscan vectors of Bilharziasis" was promulgated in March 1948. This law authorizes the Ministry of Public Health to ask landowners to clear distributaries twice yearly, and in case of non-execution, to clear at the owner's expense, the moneys being reimbursed to the Ministry by way of tax collection. The Ministry now has the legal right, after pre-arrangement with the Irrigation Department, to deviate streams, fill in ponds or drains, place pipes, etc. as deemed necessary, and to close or open intakes for treatment purposes. It makes it illegal for the population to interfere with the execution of control measures or to tamper with treated waters. It makes legal the inspection of private lands by our officers which have the status of judicial police. Small fines are provided for infringements.

A separate budget, provisionally fixed at L.E. 30,000 has been allotted this year for the application of the law.

## III. THE LABORATORY

(1) Routine examinations of bilharzial infection of snails from Giza, Kaliubia, Menoufia and Behera Provinces were made in the Cairo laboratory, results being used in the field for guiding priorities of treatment, as in previous years.

The collected snails are also used for experimental purposes in our laboratory and in the laboratories of other parts of the world, as required.

(2) Various higher boiling point naphthas and chlorinated benzenes of a type that has gained popularity as weed killers in the U.S., together with other weed killers and insecticides were investigated for their molluscocidal properties and were found, without exception, of too high lethal concentrations for practical use.

The laboratory gave hospitality and assistance to the I.C.I. expert who spent all summer making field experiments with "Gammexane", especially the delta and gamma isomers; the chemical is promising, but in the present formulation it cannot compete economically with copper sulphate.

(3) By special agreement, the section has also extended all facilities for bilharziasis research to a number of workers from foreign countries, for periods ranging from 1 month to over two years, by providing laboratory space, equipment, an assistant staff, transportation, infected materials and by raising animals such as white mice, gerbils, guinea pigs and monkeys for experimental purposes.

#### IV. EDUCATIONAL

(1) *Museum.* A comprehensive documentary was prepared for the 16th Agricultural exhibition which has been housed in a museum on the premises of the section.

(2) *Textbook.* A textbook, primarily for the personnel of the section, written in simple Arabic and extensively illustrated is now under print. It will also be for sale to the general public at a moderate price.

(3) *Training centre.* A fully equipped training centre was set up last year and a full-time instructor is now handling classes of about 20 junior grade men monthly. The higher grade personnel is taken care of by the laboratory staff.

(4) *Films.* The Section has been giving advice, materials and other facilities to the Medical Propaganda Section for the production of films on bilharziasis.



## Chapter XX — LEPROSY CONTROL

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The campaign against Leprosy in Egypt began in 1929. Since the creation of the section, great efforts were displayed in combating the disease. Out - patient dispensaries were set up in the chief provinces, each provided with isolation quarters and four branch-units in the neighbouring districts for the examination and treatment of leprosy patients, and the isolation of the greatest possible number in agricultural and industrial colonies provided with all means of comfortable living.

The Section prepared a project for combating leprosy and segregation of lepers. The Ministry of Health issued law No. 131 of 1946 regulating the detection and isolation of cases, so as to protect the community against this fatal disease and to ensure the care of leprosy patients.

### *General Statistics :*

Of 2,060 patients presenting themselves to leprosy units during the year, 1214, were found leprosy, as against 1916 and 897 respectively during the previous year. This brings the total number of patients returned positive for leprosy since leprosy control was launched in 1929 to 15,664 out of a total of 31,571 patients presenting themselves to leprosy units for examination during the same period.

Of the 1214 positive lepers found this year, 453 were repeatedly recorded in leprosy units. This leaves 761 new lepers proper.

Of the total 15,664 lepers recorded since 1929 until this year, 3,964 were recorded in more than one leprosy unit. This leaves a total of 11,700 lepers proper on records.



The following table No. 127 gives the distribution of new lepers according to leprosy units and branches :

Unit	Branches	No. of lepers	TOTAL
Abou Zaabal Leprosy Colony ...	—	159	<b>159</b>
Amria Leprosy Colony ... ..	—	229	<b>229</b>
Cairo Leprosy Hospital ... ..	Main Clinic ... .. 123 Imbaba B. ... .. 21 Karamidan B. ... .. 56 Kaliub B. ... .. 12		<b>212</b>
Zagazig Leprosy Clinic ... ..	Main Clinic ... .. 20 Abu Hammad ... .. 1 Shebin el Kanater ... .. 18 Minia el Kamh ... .. 4 Abou Kebir ... .. 4		<b>47</b>
Souhag Leprosy Clinic... ..	Main Clinic ... .. 37 Tema ... .. 22 Gerga ... .. 9 Tahta ... .. 27 Akhmira ... .. 4		<b>99</b>
Tanta Leprosy Clinic ... ..	Main Clinic ... .. 58 Mehalla el Kobra ... .. 44 Zifta ... .. 16 Kallin ... .. 42 Kafr el Zayat ... .. 4		<b>164</b>
Minia Leprosy Clinic ... ..	Main Clinic ... .. 41 Bani Mazar ... .. 2 Abou Kirkas ... .. — Samallout ... .. — Mallawi ... .. —		<b>43</b>
Alexandria Leprosy Clinic ... ..	Main Clinic ... .. 22 Damanhour ... .. 23 Karmouz ... .. 1 Desouk ... .. 4 Rosetta ... .. 3 Idko ... .. 4		<b>57</b>
Mansoura Leprosy Clinic ... ..	Main Clinic ... .. 40 Damietta ... .. 7 Sinbellawein ... .. 8 Sherbin ... .. 8 Dekernis ... .. 5		<b>68</b>
Shebin el Kom Leprosy Clinic ...	Main Clinic ... .. 18 Menouf ... .. 22 Ashmoun ... .. 6 Quesna ... .. 9 Benha ... .. 10 Tala ... .. 8		<b>73</b>
Qena Leprosy Clinic ... ..	Main Clinic ... .. 14 Luxor ... .. 21 Kous ... .. 16 Deshna ... .. 7 Nag' Hamadi ... .. 5		<b>63</b>

At the end of 1949, there were 923 lepers in segregation at Abou Zaabal and Amria Colonies and Cairo Leprosy Hospital and isolation quarters annexed to the Leprosy units as against 863 at the end of the previous year. They were distributed as follows :—

Abou Zaabal Colony ... ..	437
Amria Colony ... ..	267
Cairo L. Hospital... ..	177
Sohag L. Clinic ... ..	2
Mansoura L. Clinic ... ..	17
Qena L. Clinic ... ..	23
<b>TOTAL ... ..</b>	<b>923</b>

The average rate of attendance of lepers for treatment was 21 per cent as demonstrated by the following table No. 128.

TABLE NO. 128

Month	No of attendances (Visitors)	Rate
		%
January ... ..	9,761	17
February ... ..	9,338	21
March ... ..	12,067	27
April ... ..	9,700	16
May ... ..	13,509	27
June ... ..	9,868	21
July ... ..	9,023	20
August ... ..	12,687	22
September ... ..	10,381	22
October ... ..	7,690	17
November ... ..	12,256	21
December ... ..	10,486	22

#### *Treatment :*

Hydnocarpus oil was used for the treatment of all lepers. It was given intramuscularly in a weekly dose of approximately 4-5 ccs.

A total of 117,903 injections weighing 529 kgs., of hydnocarpus oil were given to patients during the year as against 107,729 injections and 481 kgs., in the previous year. A total of 173,822 dressings were applied to patients during the year, as against 171,181 in the previous year. The following Table No. 129 gives the details :

TABLE No. 129

Month	Number of injections	Quantity of oil	Number of dressings
January ... ..	8,916	40,717	16,255
February ... ..	8,625	38,690	16,318
March ... ..	11,386	50,378	20,457
April ... ..	9,130	41,588	13,484
May ... ..	11,509	52,096	15,814
June ... ..	9,426	42,021	12,471
July ... ..	8,537	38,127	11,772
August ... ..	12,059	53,610	15,593
September ... ..	9,859	44,670	12,685
October ... ..	7,126	31,318	11,086
November ... ..	11,302	50,874	15,159
December ... ..	10,028	44,699	12,728
<b>TOTAL ... ..</b>	<b>117,903</b>	<b>528,788</b>	<b>173,822</b>

Treatment was not restricted to leprosy but was given to other attendant diseases.

#### ABOU-ZAABAL COLONY.

Following the completion of female quarters within the Colony, 90 female lepers were transferred from Cairo Leprosy hospital to Abou Zaabal Colony. It is proposed to use the Cairo hospital as a preventorium for the accommodation of healthy children of leprous parents.

During the year, 279 lepers were admitted to the Colony as against 210 in 1948. Of these admissions, 120 had previously been in segregation in the Colony but were discharged for one reason or another. The number of lepers in segregation at the end of the year was 437 as against 455 in the previous year.

#### *Technical Work :*

(1) Examination of the 159 new admissions revealed that 54 were anesthetic type, 20 tubercular and 85 of the mixed type. Examination of the 120 re-isolated lepers revealed that 73 were anesthetic, 12 tubercular and 35 of the mixed type.

(2) Bacteriological examination of nose and skin samples taken from the 437 lepers in segregation gave the following results :

150 lepers positive nose only ; 83 lepers positive skin only ; 133 positive nose and skin and 71 negative nose and skin. It was also revealed that 10 positive lepers became negative, 4 negatives became positive and 423 remained unchanged.

(3) The annual clinical examination of residents showed that the conditions of 285 lepers improved, 112 remained stationary and 40 deteriorated.

(4) There were 127 cases of perforating ulcers. All were treated and improved, except 19 cases which were still under treatment.



(5) Of 289 cases of leprosy reaction met with this year, 232 were light and 57 severe. All were duly treated and improved, except 5 severe cases which were still under treatment at the end of the year.

(6) A total of 82,440 dressings were applied to lepers this year.

(7) 153 surgical operations were performed on lepers this year, namely :

82 incisions, 43 widening of incisions, 16 removal of bones, 11 removal of auricula infima and one circumcision.

(8) Skin diseases affections numbered 505 this year, namely :

156 cases of scabies; all were treated and recovered completely.

342 cases of dermatitis. All were treated and recovered, except 92 cases which were still under treatment at the end of the year.

4 cases of favus. All were treated. One case recovered and three were still under treatment at the end of the year.

3 cases of urticaria. All were treated and recovered completely.

(9) Venereal diseases cases (syphilis) numbered 18. All were treated.

(10) Medical diseases cases which were treated and recovered numbered 351 namely :

3 cases of cholecystitis, 317 cases of dyspepsia and gastritis,

3 cases of heart failure, 26 cases of general debility and two cases of dropsy.

(11) 62 cases of chest diseases were met with during the year namely :

5 cases of pulmonary tuberculosis still under treatment, 2 cases of asthma, 7 cases of acute bronchitis, 45 cases of bronchitis and 3 cases of pneumonia, all of which were treated.

(12) Lepers attended the ophthalmic clinic for treatment 2,963 times. 114 operations were performed during the year, namely :

25 probing of canaliculi, 7 skin and muscle, 1 lacrymal cyst, 20 trachoma, 27 follicles, 15 trichiasis, 2 pterygium, 2 excisions, 1 paracentesis, 2 extractions of cataract, 5 chalazion, 3 graft, and 4 canthoplasty.

The oculist paid the Colony 32 visits this year.

(13) 230 patients attended the dental clinic this year and were treated. Dental operations totalled 54 namely :

17 Extractions .

28 Pyorrhoea.

6 Abscesses of the gum.

3 Extractions of radix.

The dentist paid the Colony 39 visits during the year.

(14) Parasitic affections numbered 45, namely :

21 cases of bilharziasis.

19 " " ancylostomiasis and ascaris.

5 " " malaria.

All were treated and recovered.

(15) 196 samples of urine were taken from patients and staff examined at the colony's laboratory. This gave the following results :

1 Bilharziasis — 13 Renal casts — 126 Pus and 56 salts.

(16) Samples of faeces numbered 33 and gave the following results :

6 Ancylostoma .

17 Ascaris

10 Other parasites.

*Staff Clinic :*

Members of the staff in residence with their families in the Colony attended this clinic 4,972 times for treatment or an average of 14 visits daily. Diseases treated were as follows :

270	Rheumatism.
4	Mumps .
130	Tonsilitis.
45	Otitis.
1	Rhinitis.
160	Enteritis.
240	Bronchitis.
485	General debility.
75	Constipation.
39	Bilharzia.
4	Ascaris.
6	Dysentery
16	Malaria
35	Scalds .
2	Scabies .
4	Urticaria.
10	Circumcision .
55	Abscesses .
3	Deliveries.
15	Ophthalmia .
2	Whooping cough.
1	Puerperal fever.
12	Scorpion sting.
12	Renal colic.
2	Eczema.
75	Wounds .
1	Syphilis.
268	Small pox vaccinations
242	Diphtheria vaccinations
28	Extraction of tooth.
1	Abrasion.
45	Eye operations.
700	Eye painting.
1400	Dressings.
490	Acidity.
1	Metrorrhagy .
17	Penicillin treatment.
1	Insulin               "               .

*Social Activities :*

(1) *School* : 22 lepers attended the day school and 13 attended the night school.

(2) *Library* : Lepers frequented the library on an average of 350 times a month or 12 times a day.

Books were loaned to lepers on an average of 150 per month or 5 books daily.

(3) *Lectures and Preaching* : Lepers are lectured and preached in the mosque of the Colony during Friday prayers. These leave a good effect on the morale of lepers.



(4) *Sports* : Scout and physical drills were practised by the scouts troop comprising 30 lepers. The object is to instil discipline in young patients. A football team was organised from 20 lepers who have weekly training.

*Club and Welfare :*

The welfare of lepers in segregation received the special attention of the Colony authorities. Traditional meals were provided during Ramadan fasting. Cakes and pudding were provided during feasts and special events. The canteen provided other commodities.

*Prison :*

This prison accommodates lepers serving terms of imprisonment. It is under control of the Prisons Department. 16 lepers were in prison at the begining of this year. 30 lepers were admitted to the prison during the year and 16 prisoners were released, leaving 30 prisoners in segregation at the end of the year.

*Industrial Activities :*

A large variety of articles required by the Colony and inmates were manufactured by the workshops within the Colony. These workshops which comprise carpentry, shoe making, foundry, tailoring, etc. are manned by lepers. Other activities such as nursing, teaching, gardening, etc. are also undertaken by lepers.

*Agricultural Activities :*

A further 20 and a half acres of land have been reclaimed this year bringing the total area under cultivation to 133 acres of land. This land was properly cultivated by lepers under the supervision of an agricultural overseer. It produced adequate quantities of vegetables, cereals and fruits to meet the requirements of inmates. Besides, a large number of cattle is now kept in the colony mainly, 73 buffaloes, 3 cows, 22 oxen, 13 donkeys, 3 mules, a camel and 2 oxen kept for breeding. The dairy farm produced some 22, 677 kgs. of milk and 2,985 cubic metres of manure during the year. Male offsprings are slaughtered for food.

*Water and Light Works :*

These comprised a power station, a pumping station, a sedimentation plant, a drainage pump and a repair workshop.

A total of 471,780 Kilo Watts of electricity were used for lighting and sedimentation. A total of 1,185,840 cubic meters of fresh water were filtered for drinking by the sedimentation plant. The drainage pump drained all waste water which, after purification, was used for irrigation. The workshop is a small mechanical and electrical workshop for undertaking minor repairs for the various plants.

*Cairo Leprosy Hospital :*

Of 288 persons presenting themselves to the hospital, 212 were found leprous and 76 suffered from other diseases.

Of the 212 leprous patients, 116 were anesthetic, 40 tubercular and 56 of the mixed type.

*Contacts :*

Lepers attending the hospital are advised to bring their contacts for medical examination with a view to detecting the infection on its onset. Contacts are examined periodically every three months.

*In-patients :*

This section is assigned for the accommodation of female lepers prior to their transfer to the special section provided within Abou-Zaabal Colony. 90 patients have already been transferred this year. The number of lepers in segregation at this hospital at the end of the year was 177.



These patients carry out all domestic duties i.e. cleaning, washing, tidying beds etc. Bed ridden patients are attended by other inmates. Some patients undertake needle work and sewing.

Lepers in residence are entertained from time to time by the hospital and afforded every possible amusement.

*Out-patients :*

There are three out-patient clinics working in connection with this hospital namely :

1. Embaba dealt with 21 new patients and 2,972 attendances.
2. Kara Midan dealt with 56 new patients and 8,235 attendances.
3. Kaliub dealt with 12 new patients and 2,725 attendances.

*Treatment :*

Patients were treated with hydnocarpus oil given intramuscularly. All other diseases, complications and reactions accompanying leprosy were treated as well. A total of 22,504 injections weighing 100.129 kgs of hydnocarpus oil were given to patients in the hospital and branch clinics during the year.

Some 19,038 dressings were applied to patients during the same period.

AMRIA COLONY

This was opened on 22/10/1947. The number of lepers in segregation at the end of the year under review was 360.

229 new patients were admitted during the year. Of this number, 18 lepers were tubercular, 109 anesthetic and 102 of the mixed type.

All the inmates received hydnocarpus oil treatment. Lepers treated at the Colony during the year numbered 8,061. An equal number of injections weighing 31.630 kgs. of hydnocarpus oil were given to patients.

*Entertainment of Inmates :*

The same arrangements as used in Abou Zaabal Colony and Cairo Leprosy hospital are afforded to the inmates. During feasts, the meat ration is doubled and the inmates are provided with sweets and cigarettes.

All other commodities required by the inmates are provided by the colony at cost price.

A radio set as well as various games were provided for the amusement and entertainment of inmates.

## PART V—RESEARCHES & LABORATORY EXAMINATIONS

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### Chapter XXI — SUMMARY OF THE WORK OF THE PUBLIC HEALTH LABORATORIES DEPARTMENT

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#### 1.—*Bacteriological Section* :

The total number of specimens examined bacteriologically in the Central, Provincial and Branch laboratories, during the year 1949, amounted to 520,214.

#### 2.—*Clinical-pathological Section* :

4,035 specimens were examined in the Section during the year under review.

#### 3.—*Chemical Section* :

The total number of samples examined chemically in the Central Laboratories as well as in the Tanta and Assiut laboratories, during the year 1949, was 71,269.

#### 4.—*Water Section* :

(a) *Bacteriological Service* :—The total number of samples of water, aerated water, ice and syrup examined by this Service during 1949 amounted to 8,476.

(b) *Chemical Service* :—During the year under review 1,648 samples of water were subjected to chemical analysis.

#### 5.—*Antirabic Institute and Hospital* :

During the year 1949, 9,899 patients attended the Institute at Cairo. Of these 9,726 were fully treated.

The number of patients who attended the Antirabic Out-Centres at Alexandria and Luxor amounted to :

Alexandria : 912 of whom 699 were fully treated.

Luxor : 499 of whom 458 were fully treated.

#### 6.—*Serum and Vaccine Laboratory* :

The following vaccines and sera were prepared during the year 1949 :

(1) T.A.B. Vaccine, 980,225 ccs.

(2) Anti-cholera Vaccine, 176,400 ccs.

(3) Calf Lymph Vaccine, 21, 327,500 doses.

(4) Diphtheria prophylactic (Formal Toxoid), 38,705 bottles of 20 ccs., 13,633 bottles of 10 ccs., and 18256 boxes (each box for one person)

(5) Diphtheria Antitoxin, 9,274 ampoules of 10,000 units, 35,533 ampoules of 4,000 units, and 15,635 ampoules of 1,000 units.

(6) Anti Tetanus, 60,210 ampoules of 3,000 units.

(7) Anti-Scorpion, 90,852 ampoules.

# Chapter XXII—SUMMARY OF THE WORK OF THE RESEARCH INSTITUTE FOR TROPICAL DISEASES

## *Out-patients Department :*

The total number of patients who attended the out patients department was 8,481 classified as follows :

(1) Males more than 12 years of age	...	...	...	...	...	5,048
(2) " less " " " "	...	...	...	...	...	474
(3) Females more " " "	...	...	...	...	...	2,542
(4) " less " " " "	...	...	...	...	...	417

On their first day of attendance, all patients are subjected to a thorough clinical examination, examination of their urine and stools for parasitic infection, and estimation of hemoglobin content. Other investigations are performed for each case as required.

These investigations include.

(1) Physical, chemical and bacteriological examination of urine. The new tests for detection of Bilharzial infection are also performed.

(2) Examination of stools for different protozoa and culture to detect Bacteria.

(3) Complete examination of the blood for :

- (a) Blood picture
- (b) Sedimentation rate
- (c) Microscopic examination for blood parasites
- (d) Estimation of bleeding and coagulation time.
- (e) Biochemical tests
- (f) Bacteriological tests

(4) Examination of the sputum for micro-organisms and Bilharzia ova.

(5) Kidney and liver function tests.

(6) Cardiography.

(7) Estimation of B.M.R.

(8) Sigmoidoscopy and examination of rectal scrapings

(9) X-ray films and screening.

All patients suffering from parasitic infections were tested either as out or in-patients. The patients diagnosed as suffering from organic diseases numbered 751 and are classified as follows :

<i>Diseases of the heart and circulatory system :</i>	Cases
Hypertension	78
Heart failure	21
Mitral stenosis	33
" " and regurg.	21
Double mitral and aortic regurg.	11
Aortic regurg. (Rheumatic)	3
" " (Syphilitic)	4
Angina pectoris	3
Femoral thrombosis	4
Congenital heart defects	2



*Diseases of the respiratory organs :*

[illegible]

*Diseases of the digestive organs :*

[illegible]

*Diseases of the urinary tract :*

[illegible]

*Diseases of the nervous system :*

[illegible]

*Miscellaneous :*

Chronic myeloid Leukaemia	... .. .	One case
Hodgkin's disease	... .. "	"
Lympho - sarcoma	... .. .	2
Purpura	... .. .	3
Diabetes mellitus	... .. .	27
Pellagra	... .. .	21
Enterica	... .. .	3

*Treatment of Schistosomiasis :*

The routine method used for the treatment of Bilharzial infection during 1949, was the same that has been followed since 1946.

The patient weighing 60 Kgms or more is given a daily dose of 5 ccs. of repodral intramuscularly for ten consecutive days.

The excreta are examined directly after finishing the course of treatment. Further examinations are carried out one week, 2 weeks and one month later.

The results are given in table No. 133 which shows that the ratio of apparent cure was 79 per cent.

The treatment of Bilharzia infection with Miracil per os was also continued on a large scale and with different dosage than last year.

The results are published in a special report.

*Treatment of Helminthic infection :*

(1) Ancylostoma worms : The drug used was carbon tetrachloride in a dose of 5 ccs with a saline purge two hours later.

(2) Ascaris worms : a dose of 2 1/2 ccs. of oil of chenopodium is administered, to be followed by a saline purge within 2 hours.

(3) Taenia worms: The drug used is atebrin. The dose given is 0.9 gram on an empty stomach after two days on fluid diet. A saline purge is given after 2 hours.

(4) Heterophyes heterophyes worms: Treatment is carried out by filix mas. The dose is 5 ccs. followed by a saline purge within two hours.

(5) Hymenolepis worms are also treated by filix mas with the same dose as that used in Heterophyes infection.

(6) Oxyuris worms: carbon tetrachloride in the same dose as used in the treatment of ancylostoma. All the doses mentioned above are those given to adult patients weighing 60 kgms or more.

The results of treatment of helminthic infection are illustrated in table No. 134. The ratio of apparent cure after the first purge in each case is as follows :

	per cent
(1) In ancylostoma infection	42
(2) „ ascaris „	44
(3) „ taenia „	65
(4) „ Het. het. „	60
(5) „ Hymenolepis „	31
(6) „ Oxyuris „	41

Furthermore, some cases of ascaris infection were treated with Hexylresorcinol Also atebrin and chloroquine were used for the treatment of taenia and hymenolepis infection.

The results are mentioned later in special reports.

*Haematology section*

The following blood specimens were examined during the year 1949 :

	Cases
(1) Haemoglobin estimations ... ..	7,764
(2) Complete blood count ... ..	1,166
(3) Red cell count ... ..	48
(4) Total white count ... ..	155
(5) Differential count ... ..	108
(6) Sedimentation rate ... ..	212
(7) Bleeding time ... ..	46
(8) Coagulation time ... ..	53





TABLE No. 130.—ANTI-BILHARZIAL TREATMENT IN O. P. IN 1949

Parasitic infection		Results of urine and stool examination											
Urine	Stools	Total Number of Patients	Number of Patients who did not attend treatment	Directly after finishing treatment		after one Week		after two weeks		after one month			discontinued
				Negative	Positive	Negative	Positive	Negative	Positive	Negative	Positive	cured	
Sch. h. ... ..	—	1,236	857	306	73	97	36	44	27	32	19	32	347
Sch. h. ... ..	Sch. h. ... ..	38	27	9	2	4	2	4	1	2	1	2	9
Sch. h. ... ..	Sch. m. ... ..	21	14	7	—	3	1	3	1	3	1	3	4
Sch. h. ... ..	Sch. h. ... .. Sch. m. ... ..	5	2	3	—	2	1	2	1	1	2	1	2
—	Sch. h. ... ..	16	10	3	3	2	3	2	2	2	1	2	4
—	Sch. m. ... ..	49	39	6	4	3	3	3	2	3	2	3	7
—	Sch. h. ... .. Sch. m. ... ..	3	1	1	1	1	1	1	1	1	1	1	1

TABLE No. 131.—RESULT OF TREATMENT OF HELMINTHES INFECTIONS DURING 1949

Parasitic infection	Total number of Pts.	Pts. who did not attend for treatment or for re-examination	Results of stool examination after 1st purge					Results of stool examination after 2nd purge					Results of stool examination after 3rd purge					Di. continued			
			after one week	after one month	after two months	Cured	Discontinued	after one week	after one month	after two months	Cured	Discontinued	after one week	after one month	after two months	Cured					
Ancylostoma ... ..	915	736	—	+	—	+	—	+	—	+	—	+	—	+	—	+	—	+	—	—	—
Ascaris ... ..	946	747	91	108	57	24	40	19	40	82	24	26	22	16	19	9	19	34	14	10	13
Taenia ... ..	102	45	37	19	37	—	37	—	37	8	8	3	8	—	8	—	8	3	—	—	—
Heterophyes heterophyes ... ..	11	6	3	2	1	—	1	—	1	2	2	—	2	—	2	—	2	—	—	—	—
Oxyuris ... ..	136	93	19	24	18	12	11	10	11	21	2	3	2	1	2	1	2	3	2	1	2
Hymenolepis nana ... ..	154	110	15	29	10	11	8	6	8	20	3	4	2	2	2	1	2	8	2	1	1
Tricostrogylus ... ..	95	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tricocephalus ... ..	26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

SUMMARIES OF THE RESEARCHES CARRIED OUT DURING  
THE YEAR 1949

Miracil D : effect on *B. mansoni* in vitro and in the treatment of urinary Bilharziasis.

A. Halawani, A. Hafez, J. Newsome and E. G. Cowper.

(1) A method for cultivating *B. mansoni* in vitro in serum - tyrode medium and the testing of the action of miracil D on worms in vitro is described. This method is considered to be of value in screening anti - Bilharzial drugs.

(2) Twenty young Egyptian prison guards who presented a six-months history of urinary Bilharzia and who were very unlikely to be recently infected were treated with miracil D.

(3) A gradual scale of dosage beginning at 2 gms. daily in two doses gave a satisfactory blood level of about 5 mg / ml. which was maintained for 5 days or more.

(4) Unpleasant symptoms were mainly the result of gastro-intestinal irritation. In this small series, no toxic effects were seen in the heart, kidney, liver, or blood.

(5) 9 out of 15 patients on full dosage were completely cleared of live eggs within 3 weeks. Two out of 5 patients receiving lower doses were also rid of live ova.

(6) Re-examination carried out 2 months after the cessation of treatment showed that 18 out of 20 patients have relapsed though a few live eggs were found in the urine. After 6 months, two patients were free of live eggs. Although the remainder of the cases showed clinical improvement, they still passed eggs.

(7) The future of miracil D as a curative drug in Bilharzia is discussed

TREATMENT OF CESTODES WITH CHLOROQUIN AS COMPARED  
WITH OTHER KNOWN VERMIFUGES

Gamal Nor El Din - Ibrahim I. Baz.

25 cases with *hymenolepis nana* infection were treated by chloroquin. Stool examinations were carried out for 6 months after finishing treatment and the results were as follows :

- (1) Negative results were continuously obtained in 18 patients.
- (2) A relapse occurred in four patients within 3 months.
- (3) The treatment failed from the beginning in 3 patients.

Chloroquin was also used for the treatment of 51 cases of taenia infection in doses similar to atabrin. The head of the worm was obtained in 18 cases ( 35 per cent). Slight toxic manifestations were encountered in some patients. These are nausea, fatigue and vomiting, and usually disappeared within two hours. Alarming symptoms, however, occurred in a child 5 years of age. Half an hour after taking the drug, he began to vomit incessantly and collapsed. The patient was rapidly treated and he was cured after five hours.

MENTAL DISEASE AND HEREDITY  
M. M. DAWOOD.

In this article, the author studied a syphilitic family : although it is known that not more than 5 per cent of aments are syphilitic, yet the results which he illustrated in table form showed that syphilis is not a negligible factor with regard to mental defectiveness.



Co-sanguinity also played its part in this respect as the author believes. Two children were treated with malaria and penicillin inoculation but showed no improvement in the mental condition within six months after treatment.

### **Cinemicrophotography of helminths and other semi-opaque objects using dark ground illumination**

J. NEWSOME

The author described an apparatus which has proved to be very simple to operate and which may prove to have a wider application in the fields of helminthology and entomology.

### **A SIMPLE TEST OF CURE IN B. HAEMATOBIIUM INFECTION.**

J. NEWSOME

The author described a method in which he used a lens of 3.5 to 4 cms. diameter and about 3 cms. focal length to be inserted in place of the condenser of the substage of the microscope. The urinary sediment, after centrifuge is put in a glass cell of 5 ccs. capacity which is placed on the mechanical stage, a microscope lamp is adjusted to give even illumination and directed on to the cell, through the lens and to a screen about 6 feet from the lens.

### **INCIDENCE OF CESTODE INFECTIONS AMONG EGYPTIANS.**

DR. GAMAL NOR EL DIN

The authors found that hymenolepis and taenia infections occurred in a percentage of 3.6 and 2.3 respectively with regard to the total number of out-patients. Only four cases of hymenolepis diminuta and one case with taenia solium were encountered. They observed that hymenolepis infection occurs mostly in children under 10 years of age. This fact is attributed to both uncleanness and un-hygienic habits. The authors discussed the importance of vitamins with regard to susceptibility of rats to infection with hymenolepis. They referred to the work of Larch and Shandler concerning immunity to hymenolepis infection in rats. Among hundreds of fleas examined by the authors, only one flea of the xenopsylla group was found harbouring cysticercoids of H. diminuta.

### **A Preliminary report on the treatment of Ambulant cases of bancrofti Filariasis with Hetrazan in Egypt.**

A. HALAWANI, I BAZ, M.M. DAWOOD

The drug was tried in 17 patients all of whom were hard working labourers who continued their daily work while taking the drug. The drug was well tolerated, and only slight side-effects occurred.

These side effects are general weakness, malaise, pain and swelling of testes, headache, lumbar pain, pain in joints, perspiration. Muscular symptoms appeared as early as the first day of treatment, and lessened gradually in spite of continuation of the drug.

The drug has proved to have a definite effect on microfilaria, their number being markedly reduced or completely disappeared.

Laboratory investigations were carried out before and after treatment, and the results illustrated in table form.

### **A SIMPLE NEW STAIN FOR INTESTINAL PROTOZOA**

DR. M. I. EL KORDY

The infusion of the brownish outer-skin of the Egyptian onion (allium cepa) was found to possess an excellent tinctorial power for the staining of protozoa. Neither mordant nor differentiation were needed. The tinctorial power of pigment is quercitrin.

# BIOCHEMISTRY DEPARTMENT

Several Biochemical and Biological experiments have been carried out on the antimony in its pentavalent form to find out whether compounds of pentavalent antimony have got any effect in the treatment of Bilharzia.

The minimum lethal dose of one of those compounds was found in order to compare it with the other known organic compounds of antimony like Fouadin, Anthiomalin and Tartar emetic. Results are tabulated in the following :

TABLE NO. 132.

Name of Compound	Experimental animals	Dose
Pentavalent antimony	Swiss rats ... ..	12 ccs./ Kilo.
Compound	White rats (English).	3 ccs./ Kilo.
	Dogs ... ..	2 ccs./ Kilo.

Moreover, dogs were injected  $\frac{1}{2}$  cc. per Kilo for two consecutive days (massive treatment) and also for one day. No toxic symptoms appeared.

N.B. The quantity of the drug received was very limited and so we could not inject the animals with more than 2 ccs. per kilo in order to find the minimum lethal dose.

The same experiment was repeated using the other trivalent organic compounds in order to find out the minimum lethal dose.

Results are tabulated in the following :

TABLE NO. 133.

Name of compound	Experimental animals	Dose
Fouadin ... ..	White rats (English).	About 2.1 ccs./ Kilo.
„ ... ..	Swiss rats ... ..	0.3 cc./ Kilo.
„ ... ..	Dogs ... ..	0.45 cc./ Kilo.
Tartar emetic ... ..	Dogs (intravenous) ...	0.25 cc./ kilo.
Anthiomalin ... ..	Dogs (intramuscular)	0.25 cc./ kilo.

1 cc. of Tartar emetic solution contains 22 mgs. sb.

1 cc. of Anthiomalin solution contains 10 mgs. sb.

1 cc. of the pentavalent antimony compound contains 8 mgs. antimony.

By comparing the minimum lethal doses of the above mentioned compounds with the percentage of antimony they contain, it was found that the pentavalent organic compound is the least toxic.

The percentage of antimony in mgms was calculated in the pentavalent organic compound by calculating it from its structural formula and it was found that 1 cc. of its solution contains 8 mgms.

This compound was also analysed by reducing the pentavalent antimony into the trivalent form with hydrochloric acid and estimating it adopting the iodometric method in order to find out the percentage of antimony content.

This method was also used for the estimation of similar compounds like solutibosan and neostibosan.



3. The effect of this drug on Bilharzia worms was also tried : Swiss mice were injected with the drug in a dose of  $\frac{1}{2}$  cc./k. on two days.

This had no effect as revealed by stool examination for ova. A dose of 2 ccs./k. was given in 10 days . This big dose was somewhat effective.

The drug was found safe to be given to human beings. It had no effect on liver or kidney as shown by liver and kidney function tests.

4. Eight specimens of Repodral, delivered from the Ministry's stores were examined chemically and biologically. By comparing the results with those obtained for Repodral used in the hospital of the Institute, they were found comparable.

The treatment of diabetes with antimony was also investigated. Some diabetic persons were given the usual course of Repodral. Blood sugar and sugar in urine were less after treatment than before treatment.

TABLE No. 134.

Sugar in blood fasting		1 hour later	2 hours later
	% mgms.		
Before treatment ...	125	222	133
After       ,,       daily	100	153	100
,,       ,,       7 days	87	133	90

### PROTOZOOLOGY SECTION

#### 1.—Effect of atebrin on *E. histolytica* :

##### *In vitro*

The following medium, which was devised by us was used :

Ringer's solution, 3 ccs.

Trisod. phosphate sol (3.1 per cent) 2 ccs.

pH was adjusted at 7.2 — 7.0

One ccm. of horse serum was diluted by 9 ccs. of the above solution. Sterile rice starch was added to the medium before inoculation of the infected stools.

Amoebae were grown in Erlenmyers' flasks because we wanted large numbers of amoebae.

Three strains of *E. histolytica* were used in these experiments to know the effect of atebrin on *E. histolytica* and to compare its effect with that of emetine hydrochloride.

It was shown that a concentration of one part per million sol. of emetine kills the used amoebae and that was the highest dilution of emetine which could kill the amoebae. On the other hand it was found that 1/100,000 atebrin sol. could kill the same amoebae and that was the highest dilution of atebrin which could kill the amoebae. From the above, it is obvious that the effect of atebrin on *E. histolytica* in vitro is less ten times than that of emetine HCl.

*In vivo* : 60 patients suffering from amoebic dysentery were treated with atebrin. Only 39 patients were followed up. Amoebae disappeared from 33 cases only but most of them relapsed after about one and a half months.



## II. Discovery of a simple new stain for intestinal protozoa.

We have discovered a new stain for nuclear and differential staining of intestinal protozoa. This stain is the infusion obtained by boiling the brownish outer skin of the Egyptian Onion (*Allium cepa*). The infusion contains quercitrin which is one of the most widely distributed natural pigments. It occurs in many plants such as horse-chest, nut, vine leaves, hops, tea and dyes oak.

Its chemical composition is  $C_{21} H_{20} O_{11}$  (yellow needles M.P. 182 — 185 — °C). Its chief colouring component is quercitrin which is a penta hydroxyflavone  $C_{15} H_{10} O_1$  (3, 5, 7, 3, 4 - penta hydroxyflavone, yellow crystals, m.p. 316-3170). Quercitrin is a 3 - rhamnose glycoside.

The infusion can be used as stain immediately after its preparation. Time or additional material are not required for ripening as in the case of haematoxylin solutions. Neither mordant nor differentiating solutions were needed.

### *Method of Staining :*

(1) Smears of the infected stools are made on cover slips (2) Fix in Schaudinn's fluid.

Staining : The watery infusion or the diluted infusion with 70 per cent alcohol (4 staining sol. and 1 alc.) can be used as the staining sol. Time of staining from 2 hours to over night at 37°C or at room temperature. The dehydration and mounting are as in the usual methods.

The details are published in the J. R.E.M. Association, Vol. 32 May 1949 No. 5.

# PROTOZOOLOGY SECTION

TABLE No. 135.—NUMBER OF STOOLS SPECIMENS EXAMINED AND PERCENTAGE OF INTESTINAL INFECTION DURING THE YEAR 1949

No. of exam. specimens for the first time	Positive	Percent.	Negative	Percent.	E. Histo.			E. Coli.	Percent	Iodamoeba bittehi	Percent.	G. Lamblia	Percent.	Trophom on as hominis	Percent.	Chilomastix mesnli	Percent.	Total Number of specimens examined more than one time	Total Number of specimens examined during 1949
					Neg.	Cysts	%												
1,785	739	41.4	1,046	58.6	106 (5.9%)	47 (2.6%)	8.5	372	20.8	57	3.1	80	4.4	82	4.5	114	6.3	29	1.6
																		645	2,430



## MALARIAL AND ENTOMOLOGICAL SECTION

This year the Section received 19,195 thick drops of blood for parasitic examination.

Of this number there were 10,464 sent for malarial examination and out of these, 464 drops or 4.7 per cent of the total number were unfit. 1,174 drops were returned positive for malarial parasites or 11.8 per cent of the number examined and only 8 per cent of the positive were of the malignant tertian type. The rest were of the benign tertian type.

There were also 8,731 blood drops sent for filarial examination out of which 220 drops or 2.5 per cent were unfit. 680 drops or 8 per cent of the total number examined were returned positive for *Microfilaria*.

418 specimens were received for entomological examination of which 38 were unfit and five others with in-complete information. Among the rest, there were 333 specimens containing one species of mosquito larvae, 11 specimens each containing more than one species and 31 specimens containing adult mosquitoes.

Larvae and adults were either, *A. phoroensis*, *A. multicolor*, *A. sergenti*, *A. (coastani)* *C. pipiens*, *C. laurenti*, *C. perexiguus*, *Aedes caspius*, *Theoboldia* or *Uranotaenia* and few *Chironomidae* larvae were found amongst some of these specimens. The section also received 157 specimens collected from trapped rats by the Quarantine authorities at seaports and from shipping and these were found to contain fleas of the following species: *X. cheopis*, *O. musculi*, *Ctenocephalus felis*, and among these there were few *Cimex lectularis* larvae. The number of Rats trapped was 3,820 and these were either *R.R.*, *R.N.* *Acomyes*, or *sori*.

The section received also 7 medical officers, 8 agricultural engineers and 12 technical assistants delegated by the different sections of the Ministry of Public Health to study Malaria, Filaria, and measures of control.

The section was responsible for the arrangement of the Institute's exhibits at the Agricultural and Industrial exhibition held during the year. These were awarded the first prize and a golden medal.

A parasitological survey of the district as well as a snail survey were made of Fayed district and the snail *Lymnae truncatula* was found there :

A survey of *Fasciola* infection among the cattle was also made and a high incidence of this disease as well as a high infection of *Paramphistomum cervi* were found.

During this year, several D.D.T preparations were also examined and their efficiency tried in field work. It was concluded that 5 per cent D.D.T. solution in crude tar oil to be used for mosquito control and in amount as recorded for the D.D.T. was most efficient and least expensive.

Several insecticides were examined also to demonstrate their insecticidal properties according to the request of Malaria stations.

Tests were carried out on preservation of wheat against pests by spraying with Gammexane and D.D.T. The results as well as the effect of these insecticides were reported to the Ministry of Agriculture.

The Director of the Section replaced the medical officer at Khanka malaria station for 3 months during which tests on the abortive treatment of malaria with one dose were made. Ratios of relapses among cases treated with the different drugs were recorded. This work is the subject of a separate paper.

The superior efficiency in rat control of the new Antu product forwarded by the municipality was established.

A paper on the incidence of cestode infections and another on treatment with chloroquin compounds were published. Two other papers are in progress one on *Dixa aestivalis* in Egypt and another on Parasitological survey of Fayed.



# FAYED MALARIA RESEARCH STATION.

As a result of the stringent anti-malaria measures taken by Fayed Malaria Station and its outposts, the ratio of malaria infection is lower this year than in any previous year.

Meanwhile, bilharzia control and treatment carried out by the station had a gratifying result.

This is demonstrated by the number of the inhabitants treated for parasites and the extensive snail control measures taken.

The same area has been served and the same methods of control and treatment have been used as in previous years.

A total of 7,755 blood specimens were examined during the year. Of this number, 71 or 0.915 per cent were returned positive for malaria. Of these 67 or 0.86 per cent were benign tertian and 4 or 0.05 per cent were malignant tertian.

23 anopheles mosquito breeding places were detected during the year. Examination showed that 22 or 95.6 per cent of the places harboured *A. pharoensis* and 1 or 4.3 per cent harboured *A. sergenti*. This shows that *A. pharoensis* is the prevailing species during August and September.

The most favourable breeding places for anopheles larvae are the drains, puddles and marshes. Hence, special attention is paid to the control of these places. They are either cleared of weeds or regularly dusted with insecticides.

A bilharzia treatment unit was set up on 6/10/1949 under the supervision of the medical officer of the malaria station. Work started on 3/12/1949. Until the end of the year, 1,725 inhabitants had attended for treatment. Of these :

393 were found positive for schistosomiasis (360 urinary and 33 intestinal).

173 „ „ „ „ ancylostomiasis

242 „ „ „ „ ascariasis.

117 „ „ „ „ other intestinal parasites.

19 „ „ „ „ amoebic dysentery.

All positive cases were treated by the unit.

All water courses were sprayed with copper sulphate for the extermination of snails, the bilharzia intermediate host. Results were checked by the palm-leaf trap before and after treatment and were found satisfactory.

The collection of snails for identification is a weekly routine work. Places harbouring *Bullinus* and *Planorbis*, particularly in the proximity of habitations are treated with copper sulphate.

Since a large number of habitations lacked latrines, the responsible authorities provided, at the request of the station, a number of latrines which were used advantageously. Meanwhile, a sanitary body has been formed from amongst leading members of the community to deal with the sanitation of the area.

# KHANKA MALARIA RESEARCH STATION.

Since the Institute was conducting researches on malaria, the Khanka Malaria Station which was established in 1931 was annexed to the Institute in 1933. In 1937, it was considered part and parcel of the Institute which has since been held responsible for malaria control in that area. Valuable work has been achieved since then. The spread of malaria was successfully controlled in Gebel el Asfar farm in 1936 and in Abou Zaabal Prison in 1942.

This station serves 14 villages with a population of 60,000 inhabitants, besides a number of factories and workshops including the E.S.R. workshops, the Abou Zaabal prison, the leprosy colony, the Abou Zaabal quarries, the Gebel el Asfar farm, the Frontier Districts Corps, the Mental hospital and the youth reformatory at Marg.

Among the control measures adopted by the Station were the construction of water drains and filling in of ponds and water collections.

Tests were conducted on the efficiency of the following new drugs: Aralen, Camoquine, Nivaquine and Paludrine. Patients exhibiting malaria parasites in their blood are thoroughly examined for intestinal and urinary parasites. Chemical analysis of the urine, haemoglobin estimation and differential count are also performed. Patients are followed up for a whole year. Bi-weekly examinations for fever and parasites are carried out to assess the value of each drug and estimate the number of relapses.

During the year, 26,791 patients were examined for malaria. Of these 4,848 or 18 per cent were returned positive (4,426 or 91.5 per cent for benign tertian and 422 or 8.5 per cent for malignant tertian). 22,110 of the patients examined came from within the control area and 4,681 from outside. 9.6 per cent of the former and 57.5 per cent from the latter were returned positive.



## Chapter XXIII.—SUMMARY OF THE WORK OF THE MEMORIAL OPHTHALMIC LABORATORY—GIZA.

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### RESEARCH

#### *I. Acute Ophthalmia :*

During 1949, researches in preventive measures against the acute ophthalmic epidemics were continued. In addition to work in the original experimental villages in the Abou-Rawash district, investigations were extended in collaboration with the Rural Health Research Section to the Sindibiss group where modern methods of village sanitation and fly control are being instituted. Encouraging results in limiting the epidemics have been obtained as a result of measures directed against the human carriers and vector flies.

Further advances in the treatment of acute ophthalmia have been achieved with the use of compound sulphanomides and certain of the newer antibiotics.

#### *II. Trachoma :*

Problems relating to the aetiology of trachoma remain a major interest of the research department at the Laboratory and some further progress has been made in this direction.

The effect of new therapeutic agents on trachoma and on secondary bacterial infections is under constant study and review.

#### *Routine Histopathology and Bacteriology:*

In the course of the year, 348 pathological specimens, received from the Government ophthalmic hospitals and other sources, were reported on.

The routine bacteriological work included the examination of over 7,440 smears, 161 cultures and 472 miscellaneous tests.

#### *Clinical Department :*

As in previous years, many patients were referred to the Laboratory for special examination, second opinion, etc. Treatments with new therapeutic agents were carried out in selected cases.

#### *Post-Graduate Teaching:*

Members of the Laboratory staff again gave courses of lectures and practical instructions to post - graduate students preparing for the Diploma of Ophthalmic Medicine and Surgery.



## PART VI.—APPENDICES

### Appendix I—Medical Permits

TABLE No. 136.—NUMBER OF PRACTITIONERS  
OF THE MEDICAL AND ALLIED PROFESSIONS AT THE END OF THE  
YEAR 1949 AS COMPARED WITH THAT OF THE YEAR 1948

Profession	At the end of 1948	At the end of 1949
Medical Practitioners ... ..	4,470	4,612
Veterinary Surgeons ... ..	546	596
Dental Surgeons ... ..	553	584
Dentists without diplomas * ... ..	109	107
Pharmacists ... ..	1,317	1,391
Assistant Pharmacists * ... ..	325	322
Midwives ... ..	965	996

\* No permits are now issued to persons of these two categories.

TABLE No. 137.—NUMBER OF PERSONS AUTHORISED TO PRACTISE THEIR  
PROFESSIONS IN EGYPT DURING THE LAST FIVE YEARS.

Profession	1945	1946	1947	1948	1949
Medical Practitioners ... ..	151	194	142	128	186
Veterinary Surgeons ... ..	12	28	24	1	53
Dental Surgeons ... ..	9	8	14	19	32
Pharmacists ... ..	46	62	120	77	81
Midwives ... ..	59	61	68	30	32
Dayas Green Permits ... ..	147	192	141	221	56
Dayas White Permits ... ..	2	—	2	—	—
Barbers ... ..	14	2	7	6	2

TABLE NO. 138.—THE ORIGIN OF MEDICAL DIPLOMAS WHOSE HOLDERS  
WERE AUTHORISED TO PRACTISE MEDICAL PROFESSIONS DURING 1949

Profession	Cairo	Abbassia	Alexandria	Great Britain	Greece	Switzerland	France	Lebanon	Syria	Italy	Canada	Austria	Germany	Hungary	TOTAL
Medicine ... ..	128	9	16	10	2	1	5	8	1	1	—	1	2	1	186
Veterinary Surgery ...	53	—	—	—	—	—	—	—	—	—	—	—	—	—	53
Dental Surgery ... ..	23	—	1	—	4	—	—	2	—	—	1	—	1	—	32
Pharmacy ... ..	74	—	—	—	—	1	1	5	—	—	—	—	—	—	81
Midwifery ... ..	32	—	—	—	—	—	—	—	—	—	—	—	—	—	32

TABLE NO. 139.—THE NATIONALITIES OF PERSONS AUTHORISED TO PRACTISE  
MEDICAL PROFESSIONS DURING 1949

Profession	Egyptians	Greeks	Iranians	Italians	British	Hungarians	TOTAL
Medical Practitioners ... ..	176	4	2	1	2	1	186
Veterinary Surgeons ... ..	53	—	—	—	—	—	53
Dental Surgeons ... ..	28	4	—	—	—	—	32
Pharmacists ... ..	80	1	—	—	—	—	81
Midwives ... ..	32	—	—	—	—	—	32

**TABLE No. 140.—ORIGIN OF MEDICAL DIPLOMAS OF EGYPTIAN PRACTITIONERS  
WHO WERE AUTHORISED TO PRACTISE MEDICAL PROFESSIONS DURING 1949.**

Profession	Cairo	Abbassia	Alexandria	Great Britain	Switzerland	Canada	France	Lebanon	Greece	Germany	Austria	Syria	TOTAL
Medicine ... ..	128	7	16	8	—	—	4	8	1	2	11	1	176
Veterinary ... ..	53	—	—	—	—	—	—	—	—	—	—	—	53
Dentistry ... ..	23	—	1	—	—	1	—	2	—	1	—	—	28
Pharmacy ... ..	74	—	—	—	1	—	1	4	—	—	—	—	80
Midwifery ... ..	32	—	—	—	—	—	—	—	—	—	—	—	32

**TABLE No. 141.—RESULT OF THE STATE EXAMINATIONS HELD DURING 1949 FOR MEDICAL  
PRACTITIONERS, PHARMACISTS AND DENTAL SURGEONS HOLDING FOREIGN DIPLOMAS  
FOR THE PURPOSE OF RECORDING THEIR NAMES IN THE MINISTRY'S REGISTER**

Examination	Number	Egyptians		Foreigners		TOTAL	
		Succeeded	Failed	Succeeded	Failed	Succeeded	Failed
Medicine ... ..	39	2	4	5	28	7	32
Pharmacy ... ..	17	4	2	1	10	5	12
Dentistry ... ..	11	—	2	3	6	3	8



## Appendix II— Report on the Work of the Central, Provincial and Governorate Medical Commissions, 1949.

The number of medical certificates issued by the Central Medical Commission during the year under review was 31,982 or 2,243 certificates more than the previous year, despite the extension of attributions of medical commissions in governorates and provinces to include granting and approving sick leaves up to sixty days and invaliding out of service of temporary, hors cadre and daily paid personnel, without further reference to the Central Medical Commission for final sanction.

Of this number, 17,167 candidates for government service or educational missions abroad were examined by the Central Medical Commission. These consisted of 11,350 candidates for permanent and temporary service, 341 members for educational missions and 5,476 for hors cadre posts. 59.3 per cent of the candidates for permanent or temporary service and for educational missions were successful. 49 per cent of the candidates for hors cadre posts succeeded.

Of the failures in the first group, 31.1 per cent failed in vision with trachoma and myopia as the main causes ; 2.2 per cent suffered from heart diseases with incompetence of the heart as the chief complaint ; 3.9 per cent suffered from urinary system diseases with albumen as the main complaint. 3.5 per cent were rejected or pronounced unfit for suffering from other diseases e.g. varicoceles, hydroceles or hernia not treated or removed by operation, deformity, debility, respiratory system diseases, etc.

Of the candidates for hors cadre service 39.4 per cent were rejected for defective vision with myopia as the chief complaint ; 6. per cent for urinary system diseases with albumen as the main cause, 0.9 per cent for heart diseases with incompetence of the heart as the main complaint and 4.3 per cent for other diseases e.g. varicoceles and hydroceles not treated or removed by operation, deformity, debility etc.

Of 9,605 persons examined for sick leaves, 6,914 were of the pensionable or temporary personnel and 2,691 of the hors cadre.

Of those granted sick leaves by the Central Medical Commission or by Cairo District medical officers of health and approved by the C.M.C., 3,890 of the former and 1,176 of the latter suffered from medical diseases and 1,718 of the former and 708 of the latter suffered from surgical or ophthalmic diseases.

Herebelow are the diseases accounting for the sick leaves and ratios of their prevalence

TABLE No. 142

Diseases	P. and T. Officials		H.C. Employees	
	Number	Percentage of total (5698)	Number	Percentage of total (1884)
Nose and Larynx ... ..	360	6.32	90	4.72
Bronchi and Lungs ... ..	473	8.30	162	8.59
Heart and Circulatory System ... ..	444	7.79	32	1.71
Stomach and Intestines ... ..	224	3.93	89	4.72
Liver ... ..	299	5.25	43	2.28
Kidneys and Cystis ... ..	217	3.81	50	2.65
Neurasthenia ... ..	33	0.58	3	0.16
Mental Diseases ... ..	328	5.76	134	7.12
Nervous System ... ..	206	3.62	41	2.18
Anaemia and General Debility ... ..	438	7.69	98	5.21
Tuberculosis ... ..	381	6.69	265	14.07
Syphilis ... ..	—	—	2	— .11
Rheumatism ... ..	479	8.41	129	6.91
Various Fevers ... ..	73	1.28	26	1.38
Other Medical Diseases ... ..	25	0.43	12	0.64
Eye Diseases ... ..	194	3.40	54	2.87
Ear Diseases ... ..	49	0.86	14	0.74
Appendicitis ... ..	79	1.39	32	1.71
Hernias ... ..	63	1.11	20	1.06
Fistulas ... ..	68	1.19	9	0.47
Piles ... ..	94	1.65	25	1.32
Hydroceles ... ..	5	0.09	5	0.26
Urinary System and Stones ... ..	48	0.84	29	1.53
Various Surgical Operations ... ..	848	14.88	375	19.91
Fractures ... ..	184	3.23	126	6.68
Dental Diseases ... ..	86	1.50	19	1.0

A total of 41,474 officials and employees were granted from 1 - 10 days sick leaves by district or outpost medical officers of health in all governorates and provinces. Of these, 32,218 or 77.68 per cent suffered from medical diseases; 6,164 or 14.93 per cent suffered from surgical diseases and 3,062 or 7.39 per cent suffered from ophthalmic diseases. A total of 140,464 days sick leave were granted to pensionable and temporary personnel only.

In Cairo only, 1,770 pensionable and temporary personnel and 704 hors cadre staff were granted from 1 - 10 days sick leave by the C.M.C.



285 pensionable and temporary personnel and 84 hors cadre staff were not granted any sick leaves. In the provinces and governorates these amounted to 1,032 pensionable and temporary personnel and 1,116 hors cadre staff.

Those granted from 11 - 30 days sick leaves by the C.M. C. and Cairo district medical officers of health were 3,928 pensionable and temporary personnel and 1,180 hors cadre. 61 pensionable and temporary personnel were granted longer sick leaves terminating by retirement on pension and 177 hors cadre staff were pronounced unfit for further service

24 pensionable and temporary personnel and 52 hors cadre were pronounced fit for further service.

*Medical Examination of Private and Passenger Pilots :*

Of 224 candidates for private pilot licence A and wireless licence presenting themselves to the C.M.C., 141 succeeded (120 on first examination, 15 on second and 6 on third examination). 65 of the 83 failures were examined once, 15 twice and 3 were examined three times.

Of 20 candidates for passenger pilot licence B examined, 17 succeeded. Two of the three failures were examined once and one twice. Of 116 private pilots and wireless operators examined for renewal of their licences, 103 succeeded (98 on first examination, 3 on second and 2 on third examination)

Of 132 passenger pilots examined for renewal of their licences 129 succeeded (127 on first examinations, 1 on second and 1 on third examination). Of the three failures, two were examined once and one twice.

*Provincial and Governorate Medical Commissions :*

A total of 49,757 medical certificates were issued by the provincial and governorate Medical Commissions during the year or 1,341 fewer certificates than in 1948





TABLE No. 144.—CLASSIFICATION OF DISEASES CONTRACTED BY OFFICIALS AND EMPLOYEES FOR WHICH SICK LEAVES WERE GRANTED BY THE CENTRAL, PROVINCIAL AND GOVERNORATE MEDICAL COMMISSIONS AND BY THE DISTRICT M.Os. IN CAIBO AND APPROVED BY THE C.M.C. DURING THE YEAR 1949

DISEASES

...	TOTAL	567	241	1,330	891	761	536	658	189	138	321	261	98	337	151	224	53	1,136	797	539	550	3	31	1,000	289	1,294	728	295	386	534	507	9,477	5,768	412	284	151	80	164	121	117	110	172	85	299	238	30	48	257	170	1,517	1,653	381	563	164	72	3,424																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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### Appendix III.—Report on the Work of the Central Stores.

As in previous years, the Central Stores continued to supply the various units of the ministry with modern medical apparatus, equipment and drugs despite exchange difficulties and prevailing conditions.

The following new units have been furnished and equipped during the year :

1. Three bacteriological laboratories in provincial fever hospitals.
2. A rabies hospital in Alexandria.
3. Two public bath-houses in Cairo.
4. Rod el Farag II public health office, Cairo.
5. Three food control teams, Cairo.
6. A new disinfection station at Khalifa district, Cairo.
7. Three malaria stations.
8. A Chest diseases unit at Beni Suef.
9. A Chest diseases unit at Belbeis.
10. A hospital for orthopaedics at Helwan.
11. Branches for the treatment of favus.
12. A child welfare centre at Dikernes.
13. A health propaganda unit at Menouf.
14. Two mobile units for treatment of scabies at Assiut and Sharkia.
15. The sanitary technician's institute.
16. Bilharzia snail destruction campaign.
17. Health propaganda.
18. A child welfare centre at Ismailia.
19. Ear, nose and throat department at Damietta hospital.
20. Dental departments in district hospitals.
21. Menouf district hospital.
22. Mellawi district hospital.
23. Port Said hospital.
24. The out-patient department at Deirout hospital.
25. Shukri Pasha health centre
26. An out-patient dispensary at Shawa.
27. An ophtalmic branch at Inshas.
28. Providing additional beds in ophtalmic hospitals.
29. A hospital in each of Maghagha, Teh el Baroud, Hehya, Abul Matamir, Bab el Shaaria, Tanta and Mansoura.
30. Two ophtalmic hospitals at Teh el Baroud and Abul Matamir.
31. Two mobile units for the Eastern and Western deserts.
32. Two fever hospitals at Gerga and Tahta.
33. Six fever hospitals in the provinces.

Equipment of the following units was completed :

1. Chest diseases dispensaries at Mellawi, Zagazig, Suez, Damietta and Damanhour.
2. The leprosy hospital at Amria.
3. Ancylostoma in-patient departments.
4. Insects eradication units.
5. Malaria units.



TABLE NO. 145.—SUMS UP THE WORK OF THE CENTRAL  
STORES DURING THE YEAR

Work	Number
Receipt vouchers ... ..	11,575
Issue „ ... ..	65,449
Claims ... ..	4,300
Outward correspondence ... ..	205,149
Inward correspondence and forms ... ..	136,563
Railway parcels dispatched ... ..	51,939
Consignments received ... ..	28,719
Postal parcels dispatched . . . . .	25,458
„ „ received ... ..	38,868
Workshops Repairs ... ..	67,006
„ new works ... ..	159,817

New constructions during the year were as follows :

1. Six hospitals at Mellawi, Teh el Baroud, Bab el Shaaria, Belcas, Hehya and an outpatient department at Behout Hospital.
2. A mosquito control branch at Ein Shams with a research centre annexed thereto.
3. The mosquito and insects eradication campaign at Siwa oasis and a yellow fever control branch at Ein Shams.
4. A health service office at Assiut.
5. Three chest diseases hospitals at Suez, Beni Suef, Damietta and two branch units at Rosetta and Kom Ombo.
6. The antirabic branch in Alexandria.
7. An ophthalmic branch within Bab el Shaaria health centre.
8. A child welfare centre at Fashn.
9. Two public bath-houses at Sharabia and Rod el Farag.
10. Four free water taps at Zawia el Hamra, Ezbet el Kaisareen, Maasara el Gedida and Helwan.
11. Seventeen health centres at Kafr el Enania, Khanka, Kalama, Diast Gaafaria, Nahtai, Derein, Nesha, Behout, Zahra Behera, Balaktar, Mansouria, Meshta, Maragha, Awlad Hamza, Farshout and Ramadi Bahri.
12. Public bath-houses within health centres at Mit el Faramawi, Malamis, Khanka, Diast, Semikhrat, Mansouria and Farshout.

TABLE NO. 146.—NUMBER OF CONTRACTS  
CONCLUDED DURING THE YEAR

Item	Number
General adjudications ... ..	272
Local „ ... ..	106
Contracts ... ..	580
Local indents ... ..	148
Foreign indents... ..	29
Forms 50 C.G. ... ..	4,021
Questions submitted to Contracts Board ... ..	4,427
Meetings held by „ „ ... ..	290
Tenders submitted in general adjudications ... ..	1,335
Agreements ... ..	3
Tenders submitted in local adjudications ... ..	268
Purchase performed by bargain ... ..	44

# Appendix IV.—Budget Grants and Posts Establishment

TABLE NO. 147.—DETAILS OF BUDGET GRANTS AND EXPENDITURES 1949

Titles	Budget Grants		Actual Expenditures	
	1948	1949	1948	1949
TITLE I.				
Salaries, Wages, Allowances ... ..	1,738,631	1,046,503	1,642,999	929,718
TITLE II.				
General Expenditures ... ..	2,227,550	1,203,400	1,908,670	1,219,092
TITLE III.				
New Works ... ..	1,439,510	846,000	625,095	513,290
TOTAL ... ..	5,405,691	3,095,903	4,176,764	2,662,100

TABLE NO. 148.—DETAILS OF POSTS IN THE  
CENTRAL ADMINISTRATION

Posts	1948	1949
<i>Permanent Posts</i>		
Technical and Administra- tive Posts ... ..	1,654	894
Intermediate Technical Posts ... ..	1,158	760
Clerical Posts ... ..	1,100	734
<i>Temporary Posts :</i>		
Technical Posts... ..	26	—
Clerical Posts ... ..	366	232
<i>Hors Cadre Personnel</i> ...	9,844	5,369
TOTAL ... ..	14,148	7,989



## Medical Treatment Department

TABLE NO. 149.—DETAILS OF BUDGET GRANTS AND EXPENDITURES 1949

Titles	Budgets Grants		Actual Expenditures	
	1948	1949	1948	1949
<i>Title I</i>				
Salaries, Wages, Allowances	—	431,645	—	358,572
<i>Title II</i>				
General Expenditures ...	—	876,000	—	622,132
<i>Title III</i>				
New works... ..	—	319,300	—	39,686
<b>TOTAL ... ..</b>	<b>—</b>	<b>1,626,945</b>	<b>—</b>	<b>1,020,390</b>

TABLE NO. 150.—DETAILS OF POSTS

Posts	1948	1949
<i>Permanent Posts</i>		
Technical and Administrative Posts ... ..	—	638
Intermediate Technical Posts ... ..	—	273
Clerical Posts ... ..	—	161
<i>Temporary Posts</i>		
Technical ... ..	—	43
Clerical ... ..	—	45
Hors Cadre Personnel ....	—	3,668
<b>TOTAL ... ..</b>	<b>—</b>	<b>4,828</b>

*N.B.*—The 1948 Budget of the Medical Treatment Department was included in the Budget of the Central Administration for that year.

## Preventive Medicine Department

TABLE No. 151.—DETAILS OF BUDGET GRANTS AND EXPENDITURES

Titles	Budget Grants		Actual Expenditures	
	1948	1949	1948	1949
<i>Title I</i>				
Salaries, Wages, Allowances ... ..	—	523,590	—	579,799
<i>Title II</i>				
General Expenditures ...	—	400,000	—	298,484
<i>Title III</i>				
New Works ... ..	—	81,300	—	12,759
<b>TOTAL ... ..</b>	—	<b>1,004,890</b>	—	<b>891,042</b>

N.B.—1948 Credits were among the Budget proposals of Chapter I (Central Administration) but were detached from C.A. as from the commencement of the year 1949.

TABLE No. 152.—DETAILS OF POSTS

Posts	1948	1949
<i>Permanent Posts</i>		
Technical and Administrative Posts ... .	—	322
Intermediate Technical Posts ...	—	435
Clerical Posts ... ..	—	323
<i>Temporary Posts</i>		
Technical Posts ... ..	—	95
Clerical Posts ... ..	—	2,518
<i>Hors Cadre Personnel</i> ... ..	—	—
<b>TOTAL ... ..</b>	—	<b>3,693</b>

N.B.—1948 Posts were among the Budget posts of Chapter I (Central Administration) but were detached from C.A. as from the commencement of the year 1949.

Appendix V.- Summary of a Report on the State of Public Health in Alexandria.

TABLE NO. 153.—MONTHLY AGE AND SEX DISTRIBUTION OF BIRTHS AND DEATHS IN ALEXANDRIA DURING 1949

Month	Births				Deaths												Total	
	Live		Dead		Under 1 year		1-5 years		5-15 years		15-45 years		45-65 years		Over 65 years			
	Male	Female	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
January ...	2,363	2,305	48	29	343	322	272	265	23	22	107	76	148	145	1,046	908		
February ...	2,259	2,120	45	29	296	283	257	310	25	21	107	69	148	190	998	939		
March ...	2,235	2,127	40	31	281	252	336	296	19	24	108	74	144	130	1,024	849		
April ...	1,941	1,900	38	29	310	254	249	252	35	15	116	66	130	125	978	768		
May ...	1,958	1,872	31	23	568	532	258	264	30	17	87	70	100	119	1,155	1,054		
June ...	1,836	1,695	39	26	618	692	310	358	19	20	111	50	93	110	1,276	1,295		
July... ..	1,885	1,770	43	28	556	535	329	384	30	33	88	84	121	119	1,225	1,213		
August ...	2,389	2,270	48	29	425	414	295	320	25	18	88	77	101	123	1,044	1,007		
September ...	1,946	1,821	33	31	362	322	235	251	32	21	86	62	103	120	931	837		
October ...	2,022	1,980	35	23	296	253	204	203	25	18	82	55	86	123	812	691		
November ...	2,054	1,950	37	33	300	245	153	163	22	19	78	61	93	102	737	637		
December ...	2,296	2,265	37	36	340	301	160	201	27	26	98	55	92	105	845	760		
TOTAL ...	25,184	24,075	474	347	4,695	4,405	3,058	3,267	318	254	1,156	799	1,359	1,485	12,071	10,958		



TABLE No. 154.—AGE AND SEX DISTRIBUTION OF INFECTIOUS DISEASES CASES AND DEATHS IN ALEXANDRIA DURING 1949

Disease	Sex	0-1 year		1-5 years		5-15 years		15-25 years		25-45 years		45-65 years		Over 65 years		TOTAL	
		Case	Death	Case	Death	Case	Death	Case	Death	Case	Death	Case	Death	Case	Death	Case	Death
Typhus ...	M.	—	—	—	—	—	—	3	1	6	2	—	—	—	—	9	3
	F.	—	—	—	—	—	—	1	1	2	—	—	—	—	—	3	1
Acute Excephalitis ...	M.	—	2	—	—	1	—	—	—	—	—	—	—	—	—	5	2
	F.	—	—	2	—	1	—	1	—	—	—	—	—	—	—	4	—
Leprosy ...	M.	—	—	—	—	—	—	7	—	5	—	—	—	—	—	12	—
	F.	—	—	—	—	1	—	3	—	3	—	—	—	—	—	7	—
Puerperal Fever.	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	24	4	60	4	2	1	—	—	86	9
Epidemic Meningitis ...	M.	—	—	—	2	—	—	4	1	2	1	1	—	—	—	9	4
	F.	1	—	—	—	—	—	1	—	1	1	—	—	—	—	3	1
Rabies ...	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	2
	F.	—	—	—	—	4	—	—	—	1	—	2	1	—	—	3	—
Scarlet Fever ...	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	4	—	1	—	—	—	—	—	—	—	5	—
Tetanus ...	M.	7	7	—	1	12	6	7	4	11	7	4	2	—	—	45	27
	F.	2	2	1	—	2	2	1	—	5	1	2	1	—	—	13	6
Acute Poliomyelitis ...	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—
Undulant Fever.	M.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	F.	—	—	—	—	—	—	1	—	1	1	—	—	—	—	1	1
Whooping Cough	M.	31	4	44	1	6	—	—	—	—	—	—	—	—	—	81	5
	F.	13	2	43	—	10	—	1	—	1	—	1	—	—	—	69	2
Chicken Pox ...	M.	59	3	34	—	46	—	4	—	2	—	—	—	—	—	145	3
	F.	41	—	61	—	81	—	—	—	2	—	—	—	—	—	122	—

Diphtheria	{ M. F. }	{ ...	24 9	10 6	76 53	16 13	11 18	4 2	— —	2 1	— —	4 2	— —	— —	1 1	— —	— —	118 84	30 21
Malaria	{ M. F. }	{ ...	— —	— —	8 13	— —	30 10	— —	165 24	— —	1 —	139 21	— —	— —	17 3	— —	— —	359 71	— 1
Mumps	{ M. F. }	{ ...	4 3	— —	21 11	— —	120 100	— —	94 13	— —	— —	30 8	— —	— —	2 —	— —	— —	271 135	— —
Erysipelas	{ M. F. }	{ ...	23 44	1 1	28 36	1 1	15 14	— —	84 38	— —	1 1	89 83	— —	— —	36 35	1 —	6 —	281 250	5 3
Bacillary Dysentery	{ M. F. }	{ ...	3 1	— —	20 15	— 1	6 4	— —	18 8	— —	— —	41 14	— —	— —	11 3	2 —	— —	191 45	1 1
Amoebic Dysentery	{ M. F. }	{ ...	4 4	2 4	18 16	7 10	4 1	4 1	7 6	2 1	5 4	29 11	— —	— —	6 4	2 1	— —	73 43	25 221
Influenza	{ M. F. }	{ ...	39 28	— —	157 101	— —	109 90	— —	338 193	— —	— —	244 145	— —	— —	23 11	1 —	— —	911 568	— —
Measles	{ M. F. }	{ ...	601 341	70 48	1,165 997	182 214	303 194	14 6	18 18	1 —	1 —	8 6	— —	— —	— —	1 —	— —	2,095 1,558	268 268
Paratyphoid A and B...	{ M. F. }	{ ...	2 4	— —	15 9	1 1	16 16	1 —	29 23	1 1	— —	16 9	— —	— —	— —	— —	— —	78 61	3 2
Typhoid	{ M. F. }	{ ...	8 3	1 1	92 77	16 8	78 76	8 14	122 79	15 7	10 7	74 43	— —	— —	18 13	1 1	— —	393 292	56 38
Broncho Pneumonia	{ M. F. }	{ ...	394 298	299 232	772 719	557 551	54 38	33 25	21 18	13 10	14 12	30 20	— —	— —	22 7	12 5	— —	1,305 1,105	947 851
Lobar Pneumonia	{ M. F. }	{ ...	141 74	22 13	282 193	31 30	70 34	9 7	114 18	9 2	16 7	166 44	— —	— —	44 12	9 3	— —	826 378	106 58
Pulmonary T.B.	{ M. F. }	{ ...	2 1	2 1	27 15	18 11	46 31	32 24	226 116	129 52	174 96	317 155	— —	— —	129 26	7 2	— —	754 346	447 203
T.B. of other Organs	{ M. F. }	{ ...	4 1	4 1	9 10	8 10	11 7	11 7	18 12	18 11	12 5	13 5	— —	— —	7 —	6 —	— —	62 35	59 33

TABLE NO. 155.—VACCINATIONS AGAINST INFECTIOUS DISEASES IN 1949

Month	Typhoid Fever		Diphtheria				Smallpox	
	1st injection	2nd injection	1st injection	2nd injection	3rd injection	Serum	Compulsory	Voluntary
January ... ..	4,299	2,872	3,213	2,906	2,905	13	3,054	375
February ... ..	5,200	2,730	3,880	3,009	2,992	46	3,293	354
March ... ..	8,825	4,599	2,815	2,596	2,651	34	3,880	1,274
April ... ..	23,167	10,687	3,005	2,638	2,494	20	3,398	1,695
May ... ..	36,815	12,265	3,634	3,488	3,542	31	4,101	866
June ... ..	26,142	13,770	2,847	2,925	3,355	19	3,321	568
July ... ..	12,985	7,961	2,525	2,340	2,716	11	2,540	280
August ... ..	17,919	10,351	3,981	3,199	3,361	29	3,975	676
September ... ..	15,098	8,760	3,342	3,378	3,881	28	3,570	426
October ... ..	10,743	6,190	3,323	3,233	3,561	31	3,862	399
November ... ..	9,602	6,800	3,636	3,708	4,636	59	3,731	477
December ... ..	5,995	4,345	3,942	3,577	3,634	57	3,394	302
Total of vaccinations in Health Offices ... ..	<b>166,788</b>	<b>91,320</b>	<b>40,143</b>	<b>36,997</b>	<b>39,728</b>	<b>378</b>	<b>42,119</b>	<b>7,692</b>
Total vac. by Vaccination teams ... ..	<b>148,562</b>	<b>43,828</b>	—	—	—	—	—	<b>346,116</b>
Vac. by private practitioners ... ..	<b>48,827</b>	<b>8,720</b>	—	—	—	—	—	<b>1,396</b>
Total of vaccinations in the City ... ..	<b>364,177</b>	<b>143,868</b>	<b>40,143</b>	<b>36,997</b>	<b>39,728</b>	<b>378</b>	<b>42,119</b>	<b>355,204</b>



## Appendix VI—Report on the Work of Cairo City Health Department

### Population :

The estimated mid year population of Cairo in 1949 was 2, 184, 800.

The following is the distribution of this population in the different Qisms :—

Kubba	...	...	...	...	...	...	...	...	...	89,300
Heliopolis	...	...	...	...	...	...	...	...	...	89,000
Zeitoun	...	...	...	...	...	...	...	...	...	84,700
Abbassia	...	...	...	...	...	...	...	...	...	129,700
Ezbekia	...	...	...	...	...	...	...	...	...	105,500
Rod el Farag	...	...	...	...	...	...	...	...	...	207,000
Shubra	...	...	...	...	...	...	...	...	...	170,800
Sharabia	...	...	...	...	...	...	...	...	...	74,100
Gamalia	...	...	...	...	...	...	...	...	...	115,400
Bab el Shaaria	...	...	...	...	...	...	...	...	...	114,200
Abdine	...	...	...	...	...	...	...	...	...	91,200
Mouski	...	...	...	...	...	...	...	...	...	75,500
Darb el Ahmer	...	...	...	...	...	...	...	...	...	110,800
Khalifa	...	...	...	...	...	...	...	...	...	121,200
Sayeda I	...	...	...	...	...	...	...	...	...	105,200
„ II	...	...	...	...	...	...	...	...	...	96,500
Boulaq I	...	...	...	...	...	...	...	...	...	66,600
„ II	...	...	...	...	...	...	...	...	...	73,300
Adawia	...	...	...	...	...	...	...	...	...	64,700
Old Cairo	...	...	...	...	...	...	...	...	...	106,900
Helwan	...	...	...	...	...	...	...	...	...	48,100
Maadi	...	...	...	...	...	...	...	...	...	45,100
TOTAL FOR CAIRO										2,184,800
										=====

### Births :

The total number of births (excluding still-births) registered during the year was 104,086 or a birth-rate of 47.6 per thousand of population. This number is 4,529 births more than last year.

Table No. 156 shows the number of births distributed on the various qisms and their rates per 1000 of population.

The number of still births registered during the year was 1,876 or a ratio of 18.02 per 1000 births as compared with 1831 during 1948, 2,081 during 1947 and 2,025 during 1946.

### Deaths :

During the year, a total of 51,193 deaths were resgistered of which 1,427 occurred amongst non-residents of Cairo, leaving 49,766 deaths for Cairo proper. This number is 2,370 deaths less than the previous year. This Gives an annual death-rate of 22.7 per thousand of population as compared with 25.1 in 1948, 27.54 in 1947, 33.7 during 1946 and a mean death rate of 33.6 per 1000 population during the last 5 years (1943-1947).

Table No. 56 shows the distribution of these deaths in the various qisms and their rates compared with each other and with the rates of previous years.

### *Infantile Mortality :*

The total number of deaths of children under one year of age was 19,039 with a decrease of 869 deaths than the previous year. This gives an infantile mortality rate of 183 per 1000 births as compared with 191 during 1948, 161 during 1947, 199.6 during 1946 and a mean infantile mortality rate of 204 during the last 5 years (1943-1947).

Table No. 156 shows the distribution of these deaths in the various qisms and their rates compared with each other and with rates of previous years.

### *Couses of Infantile Mortality :*

Diarrhoea and enteritis figure foremost on the list of diseases affecting children. They were responsible for 10,805 deaths or 56.8 percent of infantile deaths (19,039). Marasmus and general debility come next accounting for 5,530 deaths or 26.2 per cent. Respiratory diseases accounted for 1,538 or 8.2 per cent excluding deaths from bronchial and lobar Pneumonia. Other diseases accounted for 610 deaths or 3.3 per cent and Infectious diseases accounted for 556 deaths or 2.5 per cent.

### *Death Inquiries :*

The total number of uncertified deaths requiring investigation during the year 1949 was 24,430 or 47 per cent of the total of Cairo deaths.

District Medical officers of health investigated 8,511 or 35 per cent of the total number of uncertified deaths. District mid-wives investigated 15,919 or 65 per cent of the uncertified deaths.

### *Infectious diseases :*

The total unumber of infectious diseases cases notified in Cairo City during 1949 was 18,406 cases with 846 cases from outside Cairo, as compared with 14,793 cases during 1948 14,413 in 1947 and 29,196 during 1946.

Cairo deaths from infectious diseases numbered 4,692 or 9.9 per cent of the total deaths of Cairo City as compared with 9.6 per cent during 1948 and 1947 and 16.5 per cent during 1946.

Table No. 158 shows the most prevelant infectious diseases and their distribution on the various districts of Cairo.

### *Cholera :*

No cases or deaths occurred during either 1949 or 1948. This proves that the control measures taken during the 1947 epidemic had a direct bearing on the suppression of the disease.

### *Relapsing fever:*

No cases or deaths occurred during 1949 and 1948 as compared with 14 cases in 1947, 11,903 in 1946 and 2,404 in 1945. This shows that the Relapsing fever epidemic which broke out in 1945 and spread in a severe epidemic form came to an end in 1947, thanks to the effective control measures amongst which stands foremost the periodical D.D.T. dusting of the poorer quarters of the City.

Some 6,403,821 persons were dusted during the year with their clothes and bedding.



### *Small Pox :*

2 cases of small pox with no deaths were recorded during 1949 or a case rate of .001 per 1000 of population as compared with 1 case with no deaths during 1948 and 10 cases with one death during 1947.

See table No. 159.

### *Vaccination Against Small pox :*

Regular house to house vaccination of the population of the City began in 1946. The number of persons thus vaccinated were 286,715 in 1946, 645,764 in 1947 and 552,074 in 1948. During 1949, 321,501 persons were vaccinated in Kubba, Heliopolis Zeitoun, Abbassia, Old Cairo, Helwan, and Maadi Qisms. This ends the four yearly general vaccination of the whole population of Cairo and brings the total number of persons vaccinated to 1,806,054.

Besides, a total of 97,382 infants were vaccinated by Cairo District Health Offices.

### *Typhus :*

13 cases with no deaths occurred during 1949 or a case rate of .006 per thousand of population as compared with 30 cases and a case rate of .014 during 1948 and 49 cases with 10 deaths and a case rate of .031 and a death rate of .016 per thousand of population during 1947.

See table No. 160.

A total of 1440 slides for Weil felix examination were taken by Cairo Medical Officers of Health. All were taken from living persons and were returned negative with the exception of 32 slides which were found unfit for examination.

### *Typhoid :*

The number of typhoid cases notified during 1949 was 4,066 with 360 deaths or a rate of 1.9 and 0.164 respectively per thousand of population as compared with 2,581 cases with 293 deaths or a rate of 1.239 and 0.141 respectively per thousand of population during 1948 and 2050 cases with 202 deaths or a rate of 1.292 and 0.127 respectively per thousand of population during 1947.

See table No. 161.

### *Vaccination Against Typhoid :*

The number of persons vaccinated against typhoid was 224,862.

### *Diphtheria :*

The number of cases notified during 1949 was 818 with 155 deaths or a rate of 0.374 and 0.071 respectively per thousand of population as compared with 944 cases with 189 deaths and a rate of 0.453 and 0.081 respectively per thousand of population for 1948 and 980 cases with 159 deaths or a rate of 0.617 and 0.101 respectively per thousand of population during 1947.

See table No. 162.

### *Anti Diphtheria Vaccination :*

The number of children immunised against diphtheria during the year 1949 was 76,092 receiving 1st injection, 69,827 receiving 2nd injection and 68,442 receiving third injection.

### *Measles :*

The number of cases of measles notified during 1949 was 1,711 with 682 deaths and a ratio of 0.782 and 0.312 respectively per thousand of population as compared with 1,979 cases with 1,209 deaths or a rate of 0.950 and 0.581 respectively per thousand of population during 1948 and 996 cases with 556 deaths or a rate of 0.627 and 0.167 per thousand of population respectively during 1947.

See table No. 163.



### *Cerebro Spinal Fever :*

The number of cases notified this year was 133 with 41 deaths or a rate of 0.061 and 0.019 respectively per thousand of population as compared with 39 cases with 9 deaths or a rate of 0.018 and 0.005 respectively per thousand of population during 1948 and 72 cases with 21 deaths or a rate of 0.045 and 0.019 respectively per thousand of population during 1947.

See table No. 164.

### *Scarlet Fever :*

Seven cases of scarlet fever with no deaths were reported during 1949 or a case rate of 0.003 per thousand of population as compared with 4 cases and a rate of 0.002 per thousand of population during 1948 and 2 cases or a rate of 0.001 per thousand of population during 1947.

See table No. 165.

### *Influenza :*

The number of cases notified during the year was 2,148 with 12 deaths or a rate of 0.98 and 0.005 respectively per thousand of population as compared with 1,345 cases with one death or a rate of 0.6 and 0.005 respectively per thousand of population during 1948 and 1421 cases with 2 deaths or a rate of 0.895 and 0.042 respectively during 1947.

### *Tuberculosis :*

The number of cases notified during 1949 was 3,581 cases with 1,607 deaths or a rate of 1.6 and 0.7 respectively per thousand of population as compared with 3,508 cases with 1,568 deaths or a rate of 1.7 and 0.7 respectively per thousand of population during 1948 and 3,232 cases with 1,483 deaths during 1947 or a rate of 1.03 and 0.134 respectively per thousand of population.

### *Deaths Attributed to Confinement :*

64 deaths were attributed to confinement or a rate of 0.61 per thousand births as compared with 0.88 during 1948, 2.16 during 1947 and 1.3 during 1946. Out of this figure, 11 were due to puerperal fever with a rate of 0.11 per thousand births as compared with 0.39 during 1948, 1.47 during 1947 and 0.46 during 1946.

The total number of mothers who died within a fortnight of confinement (excluding puerperal fever cases) amounted to 93 as compared with 63 in 1948, 101 during 1947 and 98 in 1946.

The causes of these deaths were as follows: 17 eclampsia, 31 placenta praeva and metrorrhagy — 1 ectopic gestation — 6 heart failure after labour — 8 rupture of uterus—3 hard labour — 1 caesarian case — 5 Peritonitis—4 nervous shock after labour— 7 Septicemia — 7 other diseases and 3 infectious diseases.

### *Disinfection :*

In addition to the regular dusting of persons in poor quarters with their clothes and beddings as already mentioned under Relapsing fever, 18,297 rooms were disinfected by Bulaq disinfection station, 50,563 rooms by Fom el Khalig Station and 60,879 rooms by Abbassia disinfection station making a total of 129,739 rooms :—

TABLE NO. 156.—VITAL STATISTICS OF CAIRO CITY 1949.

Cairo District	Mid year Population	No. of deaths	Death Rate per 1,000 of Popul.	No. of Births	Birth Rate per 1,000 of popul.	No. of Deaths Under one year	Infantile mortality rate per 1000 Births
Kubba ... ..	89,300	2,065	23·1	4,257	46·8	797	187
Heliopolis ... ..	89,000	1,094	13·5	2,129	26·3	323	152
Zeitoun ... ..	84,700	2,185	25·8	4,415	52·1	788	178
Abbassia ... ..	129,700	2,587	19·9	6,549	50·5	836	103
Ezbekia ... ..	105,500	1,985	18·8	3,365	34·5	654	179
Rod El Farag ... ..	207,000	4,248	21·5	9,806	47·3	1,792	183
Shubra ... ..	170,800	3,727	21·8	8,971	52·5	1,574	175
Sharabia ... ..	74,100	2,285	32·8	4,727	63·9	922	195
Gamalia ... ..	115,400	2,994	25·9	5,718	49·5	1,120	196
Bab el Shaaria ... ..	114,200	2,387	20·9	5,066	44·3	894	176
Abdine ... ..	91,200	1,706	18·7	2,771	30·4	522	188
Mousky ... ..	75,500	1,376	18·2	2,917	38·7	510	175
Darb el Ahmar ... ..	110,800	2,472	22·4	5,236	47·3	920	178
Khalifa ... ..	121,200	3,193	26·3	5,927	48·9	1,237	209
Sayeda I ... ..	105,200	2,686	25·5	6,233	59·2	1,064	171
Sayeda II ... ..	96,500	2,064	21·5	3,941	40·8	951	241
Bulaq I ... ..	66,600	1,647	24·7	2,791	41·9	638	229
Bulaq II ... ..	73,300	1,724	23·5	3,473	38·3	679	195
Adawia ... ..	64,700	1,966	29·3	6,103	94·3	776	127
Old Cairo ... ..	106,900	2,799	27·1	5,429	50·7	1,147	211
Helwan ... ..	48,100	979	20·4	1,984	41·2	399	201
Maadi ... ..	45,100	1,456	32·8	2,008	44·5	506	257
<b>TOTAL ... ..</b>	<b>2,184,800</b>	<b>49,766</b>	<b>22·7</b>	<b>104,086</b>	<b>47·6</b>	<b>19,039</b>	<b>183</b>
<b>TOTAL FOR 1948 ... ..</b>	<b>2,076,601</b>	<b>52,136</b>	<b>25·1</b>	<b>99,557</b>	<b>47·9</b>	<b>19,908</b>	<b>191</b>
<b>TOTAL FOR 1947—1943 ... ..</b>	<b>7,465,600</b>	<b>251,289</b>	<b>33·6</b>	<b>447,740</b>	<b>60·</b>	<b>91,343</b>	<b>204</b>
<b>„ 1942—1938 ... ..</b>	<b>4,445,500</b>	<b>199,482</b>	<b>30·9</b>	<b>304,361</b>	<b>47·2</b>	<b>83,225</b>	<b>270</b>
<b>„ 1937—1933 ... ..</b>	<b>6,562,000</b>	<b>168,891</b>	<b>25·7</b>	<b>275,709</b>	<b>42</b>	<b>54,083</b>	<b>196</b>
<b>„ 1932—1928 ... ..</b>	<b>5,682,500</b>	<b>158,376</b>	<b>27·8</b>	<b>248,677</b>	<b>43·7</b>	<b>73,463</b>	<b>295</b>



TABLE No. 157.—DISTRIBUTION OF UNCERTIFIED DEATHS ON CAIRO DISTRICTS, 1949

District	Total No. of Deaths	Uncertified deaths			Rate of Uncertified Deaths to total Deaths
		Investigated by Dist. M.Os.	Investigated by Midwives	Total Investigated	
					%
Kubba... ..	2,065	210	596	806	39
Heliopolis ... ..	1,094	102	221	323	20·2
Zeitoun ... ..	2,185	458	1,109	1,567	71·7
Abbassia ... ..	2,587	65	137	202	8
Ezbekia ... ..	1,985	190	589	779	39·2
Rod el Farag ... ..	4,248	228	951	1,179	27·7
Shubra ... ..	3,727	53	573	626	17
Sharabia ... ..	2,285	265	1,277	1,542	67·5
Gamalia ... ..	2,994	97	122	219	7·7
Bab el Shaaria ... ..	2,387	327	197	524	22
Abdine ... ..	1,706	260	661	921	54
Mousky ... ..	1,376	840	444	684	50
Darb el Ahmar ... ..	2,472	1,400	390	1,790	72·7
Khalifa ... ..	3,193	805	1,777	2,582	80·8
Sayeda (I) ... ..	2,686	742	956	1,698	63·2
Sayeda (II)... ..	2,064	409	570	979	47·4
Bulaq (I) ... ..	1,674	336	824	1,160	70
Bulaq (II) ... ..	1,724	327	936	1,236	73·2
Adawia ... ..	1,966	365	1,013	1,378	70
Old Cairo ... ..	2,799	718	1,719	2,437	87
Helwan ... ..	979	257	560	817	83·3
Maadi ... ..	1,456	657	297	954	65·5
<b>TOTAL ... ..</b>	<b>49,766</b>	<b>8,511</b>	<b>15,919</b>	<b>24,430</b>	<b>50</b>



TABLE No. 158.—DISTRICT DISTRIBUTION OF CASES AND DEATHS OF THE PRINCIPAL INFECTIOUS DISEASES 1949.

Cairo Districts	Mid Year Population	Cholera		Relapsing fever		Small pox		Typhus		Scarlet fever		C. S. fever		Typhoid		Diphtheria		Measles	
		C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.	C.	D.
Kubba ...	89,300	—	—	—	—	—	—	—	—	—	—	1	—	239	18	28	4	72	7
Heliopolis ...	89,000	—	—	—	—	—	—	—	—	—	—	14	—	185	5	26	2	103	7
Zeitoun ...	84,700	—	—	—	—	—	—	—	—	1	—	6	—	172	15	29	4	115	41
Abbassia ...	129,700	—	—	—	—	—	—	—	—	1	—	12	—	336	42	49	19	107	9
Ezbekia ...	105,500	—	—	—	—	—	—	1	—	—	—	6	—	175	17	36	3	65	38
Rod el Farag ...	207,000	—	—	—	—	—	—	2	—	—	—	8	—	413	35	81	16	144	62
Shubra ...	170,800	—	—	—	—	—	—	1	—	—	—	11	—	368	46	54	10	107	39
Sharabia... ..	74,100	—	—	—	—	—	—	—	—	—	—	5	—	230	11	35	5	174	9
Gamalia ... ..	115,400	—	—	—	—	—	—	—	—	—	—	10	—	192	17	62	9	61	5
Bab el Shaaria ...	114,200	—	—	—	—	—	—	1	—	1	—	3	—	243	21	52	10	72	12
Abdine ... ..	91,200	—	—	—	—	1	—	2	—	—	—	8	—	143	18	32	4	72	50
Mousky ... ..	75,500	—	—	—	—	—	—	—	—	—	—	4	—	134	5	23	1	49	15
Darb el Ahmar ...	110,800	—	—	—	—	—	—	—	—	—	—	11	—	199	24	60	8	59	12
Khalifa ... ..	121,200	—	—	—	—	—	—	—	—	—	—	12	—	234	15	38	9	57	16
Sayeda I ... ..	105,200	—	—	—	—	—	—	1	—	—	—	4	—	147	24	43	8	56	9
Sayeda II ... ..	96,500	—	—	—	—	1	—	1	—	—	—	4	—	167	9	44	9	73	15
Bulaq I ... ..	66,600	—	—	—	—	—	—	—	—	—	—	4	—	74	7	37	9	54	27
Bulaq II ... ..	73,300	—	—	—	—	—	—	—	—	1	—	4	—	85	5	32	6	24	9
Adawia ... ..	64,700	—	—	—	—	—	—	—	—	—	—	1	—	110	9	16	7	103	91
Old Cairo ... ..	106,900	—	—	—	—	—	—	2	—	—	—	2	—	136	15	33	8	148	79
Helwan ... ..	48,100	—	—	—	—	—	—	—	—	1	—	1	—	43	—	3	1	49	15
Maadi ... ..	45,100	—	—	—	—	—	—	—	—	—	—	2	—	41	2	5	3	53	33
<b>TOTAL ... ..</b>	<b>2,076,601</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>2</b>	<b>—</b>	<b>13</b>	<b>—</b>	<b>7</b>	<b>—</b>	<b>133</b>	<b>41</b>	<b>4066</b>	<b>360</b>	<b>818</b>	<b>155</b>	<b>1711</b>	<b>682</b>

TABLE No. 159.—DISTRIBUTION OF SMALL POX CASES AND DEATHS ON CAIRO CITY DISTRICTS 1949

Cairo Districts	Mid year Population	No. of Cases	Case-Rate per 1000 of Population	No. of deaths	Death-Rate per 1000 of population	Case Mortality Rate per cent
Kubba... ..	89,300	—	—	—	—	—
Heliopolis ... ..	89,000	—	—	—	—	—
Zeitoun ... ..	84,700	—	—	—	—	—
Abbassia ... ..	129,700	—	—	—	—	—
Ezbekia ... ..	105,000	—	—	—	—	—
Rod el Farag ... ..	207,800	—	—	—	—	—
Shubra ... ..	170,800	—	—	—	—	—
Sharabia ... ..	74,100	—	—	—	—	—
Gamalia ... ..	115,400	—	—	—	—	—
Bab el Shaaria ... ..	114,200	—	—	—	—	—
Abdine ... ..	91,200	1	.011	—	—	—
Mousky ... ..	75,500	—	—	—	—	—
Darb el Ahmar ... ..	110,800	—	—	—	—	—
Khalifa ... ..	121,200	—	—	—	—	—
Sayeda I ... ..	105,200	—	—	—	—	—
Sayeda II ... ..	96,500	—	—	—	—	—
Bulaq I ... ..	66,600	1	.015	—	—	—
Bulaq II ... ..	73,200	—	—	—	—	—
Adawia ... ..	64,700	—	—	—	—	—
Old Cairo ... ..	106,900	—	—	—	—	—
Helwan ... ..	48,100	—	—	—	—	—
Maadi ... ..	45,100	—	—	—	—	—
TOTAL ... ..	2,184,800	2	.001	—	—	—

TABLE NO. 160—DISTRIBUTION OF TYPHUS CASES AND DEATHS ON CAIRO CITY DISTRICTS 1949

Cairo Districts	Mid year Population	No. of Cases	Case-Rate per 1000 of Population	No. of deaths	Death-Rate per 1000 of population	Case Mortality Rate per cent
Kubba... ..	89,300	—	—	—	—	—
Heliopolis ... ..	89,000	—	—	—	—	—
Zeitoun ... ..	84,700	—	—	—	—	—
Abbassia ... ..	129,700	—	—	—	—	—
Ezbekia ... ..	105,500	1	.009	—	—	—
Rod el Farag ... ..	207,000	2	.010	—	—	—
Shubra ... ..	170,800	1	.006	—	—	—
Sharabia ... ..	74,100	—	—	—	—	—
Gamalia ... ..	115,400	1	.009	—	—	—
Bab el Shaaria ... ..	114,200	1	.009	—	—	—
Abdine ... ..	91,200	2	.022	—	—	—
Musky ... ..	75,500	—	—	—	—	—
Darb el Ahmar ... ..	110,800	—	—	—	—	—
Khalifa ... ..	121,200	1	.008	—	—	—
Sayeda I ... ..	105,200	1	.009	—	—	—
Sayeda II ... ..	96,500	1	.010	—	—	—
Bulaq I ... ..	66,600	—	—	—	—	—
Bulaq II ... ..	73,200	—	—	—	—	—
Adawia ... ..	64,700	—	—	—	—	—
Old Cairo ... ..	106,900	2	.019	—	—	—
Helwan ... ..	48,100	—	—	—	—	—
Maadi ... ..	45,100	—	—	—	—	—
<b>TOTAL ... ..</b>	<b>2,184,800</b>	<b>13</b>	<b>.006</b>	—	—	—



TABLE No. 161.—DISTRIBUTION OF TYPHOID CASES AND DEATHS ON CAIRO DISTRICTS 1949

Cairo Districts	Mid Year pop.	No. of Cases	Case rate per 1000 of population	No. of Deaths	Death rate per 1 000 of population	Case Mortality rate per cent
Kubba... ..	89,300	239	2.7	18	·20	7·5
Heliopolis ... ..	89,000	185	2.3	5	·06	2·7
Zeitoun ... ..	84,700	172	2.1	15	·02	8·7
Abbassia ... ..	129,700	336	2.6	42	·32	12·4
Ezbekia ... ..	105,500	175	1.7	17	·16	9·7
Rod-el-Farag ... ..	207,000	413	2.0	35	·17	8·4
Shubra ... ..	170,800	368	2.2	46	·27	12·5
Sharabia ... ..	74,100	230	3.1	11	·15	4·7
Gamalia ... ..	115,400	192	1.7	17	·15	8·8
Bab el Shaaria ... ..	114,200	243	2.1	21	·19	8·6
Abdine ... ..	91,200	143	1.6	18	·20	12·5
Mousky ... ..	75,500	134	1.8	5	·07	3·7
Darb el Ahmar ... ..	110,800	199	1.8	24	·27	12·6
Khalifa ... ..	121,200	234	1.9	15	·12	6·4
Sayeda I ... ..	105,200	147	1.4	24	·23	16·3
Sayeda II ... ..	96,500	167	1.7	9	·07	5·3
Bulaq I ... ..	66,600	74	1.1	7	·11	9·4
Bulaq II ... ..	73,200	85	1.2	5	·07	5·8
Adwaia ... ..	64,700	110	1.7	9	·14	8·1
Old Cairo ... ..	106,900	136	1.3	15	·14	11·2
Helwan ... ..	48,100	43	.9	—	—	4·8
Maadi ... ..	45,100	41	.9	2	·22	—
<b>TOTAL ... ..</b>	<b>2,184,800</b>	<b>4,066</b>	<b>1.9</b>	<b>360</b>	<b>·164</b>	<b>8·8</b>

TABLE No. 162.—DISTRIBUTION OF DIPHTHERIA CASES AND DEATHS ON CAIRO DISTRICTS 1949

Cairo Districts	Mid Year Population	No. of Cases	Case rate per 1,000 of population	No. of Deaths	Death rate per 1,000 of population	Case Mortality rate per cent
Kubba... ..	89,300	28	.313	4	.045	14.3
Heliopolis ... ..	89,000	26	.321	2	.025	8.
Zeitoun ... ..	84,700	29	.034	4	.005	14.
Abbassia ... ..	129,700	49	.377	19	.146	40.
Ezbekia ... ..	165,500	36	.331	3	.028	8.3
Rod el Farag ... ..	270,000	81	.391	16	.077	20.
Shubra ... ..	170,800	54	.316	10	.059	18.5
Sharabia ... ..	74,100	35	.473	5	.068	14.2
Gamalia ... ..	115,400	62	.537	9	.079	14.5
Bab el Shaaria ... ..	114,200	52	.455	10	.087	19.2
Abdine ... ..	91,200	32	.351	4	.044	12.5
Mousky ... ..	75,500	23	.305	1	.013	4.3
Darb el Ahmar... ..	110,800	60	.541	8	.072	13.3
Khalifa ... ..	121,200	38	.314	9	.074	24.9
Sayeda I ... ..	105,200	43	.408	8	.076	18.6
Sayeda II ... ..	96,500	44	.456	9	.093	20.4
Bulaq I ... ..	66,600	37	.505	9	.123	24.3
Bulaq II ... ..	73,200	32	.495	6	.093	19
Adawia ... ..	64,700	16	.144	7	.063	43.7
Old Cairo ... ..	106,900	33	.309	8	.074	25.
Helwan ... ..	48,100	3	.062	1	.021	33.3
Maadi .. ..	45,100	5	.111	3	.067	60.
<b>TOTAL ... ..</b>	<b>2,184,800</b>	<b>818</b>	<b>.374</b>	<b>155</b>	<b>.071</b>	<b>18.8</b>

TABLE NO. 163— DISTRIBUTION OF MEASLES CASES AND DEATHS ON CAIRO DISTRICTS 1949

Cairo Districts	Mid Year Population	No. of Cases	Case-Rate per 1000 of Population	No. of deaths	Death-Rate per 1000 of population	Case Mortality Rate per cent
Kubba... ..	89,300	72	·806	7	·078	9·7
Heliopolis ... ..	89,000	103	·273	7	·087	6·8
Zeitoun ... ..	84,700	115	·018	41	·483	35·6
Abbassia ... ..	129,700	107	·825	9	·069	8·3
Ezbekia ... ..	105,500	65	·616	38	·360	60
Rod el Farag ... ..	207,000	144	·696	62	·299	43
Shubra ... ..	170,800	107	·626	39	·288	36·4
Sharabia ... ..	74,100	174	2·351	9	·122	5·1
Gamalia ... ..	115,400	61	·539	5	·043	5·2
Bab el Shaaria ... ..	114,200	72	·630	12	·105	16·6
Abdine ... ..	91,200	72	·790	50	·548	69·4
Mousky ... ..	75,500	49	·649	15	·198	30·6
Darb el Ahmar ... ..	110,800	59	·531	12	·108	20·3
Khalifa ... ..	121,200	57	·470	16	·132	28
Sayeda I ... ..	105,200	56	·532	9	·086	16
Sayeda II ... ..	96,500	73	·756	15	·155	20·8
Bulaq I ... ..	66,600	54	·736	27	·368	50
Bulaq II ... ..	73,200	24	·371	9	·139	37·5
Adawia ... ..	64,700	103	·930	91	·280	89·3
Old Cairo ... ..	106,900	148	1·384	79	·739	53·4
Helwan ... ..	48,100	49	1·018	15	·311	30·6
Maadi ... ..	45,100	53	1·175	33	·732	62·2
<b>TOTAL ... ..</b>	<b>2,184,800</b>	<b>1,711</b>	<b>·782</b>	<b>682</b>	<b>·312</b>	<b>39·8</b>



TABLE No. 164.—DISITRIBUTION OF CEREBRO SPINAL CASES AND DEATHS  
ON CAIRO CITY DISTRICTS 1949

Cairo Districts	Population	No. of Cases	Case Rate per 1,000 of population	No. of Deaths	Death Rate per 1,000 of population	Case Mortality Rate Per cent
Kubba ... ..	89,300	1	·011	—	—	—
Heliopolis ... ..	89,000	14	·173	—	—	—
Zeitoun ... ..	84,700	6	·007	2	·002	33
Abbassia ... ..	129,700	12	·093	2	·015	17
Ezbekia ... ..	105,500	6	·056	3	·028	50
Rod el Farag ... ..	207,000	8	·039	3	·014	64
Shubra ... ..	170,800	11	·064	4	·023	36·3
Sharabia ... ..	74,100	5	·068	1	·014	20
Gamalia ... ..	115,400	10	·086	3	·025	30·3
Bab el Shaaria ... ..	114,200	3	·026	—	—	—
Abdine ... ..	91,200	8	·088	3	·033	37·5
Mousky ... ..	75,500	4	·053	2	·026	50
Darb el Ahmar ... ..	410,800	11	·099	4	·036	36·3
Khalifa ... ..	121,200	12	·099	6	·049	50
Sayeda I ... ..	105,200	4	·038	2	·019	50
Sayeda II ... ..	96,500	4	·041	3	·031	75
Bulaq I ... ..	66,600	4	·055	—	—	—
Bulaq II ... ..	73,200	4	·065	1	·015	25
Adawia ... ..	64,700	1	·009	—	—	—
Old Cairo ... ..	106,900	2	·019	2	·019	100
Helwan ... ..	48,100	1	·021	—	—	—
Maadi ... ..	45,100	2	·044	—	—	—
<b>TOTAL ... ..</b>	<b>2,184,800</b>	<b>133</b>	<b>·061</b>	<b>41</b>	<b>·019</b>	<b>30·8</b>

TABLE No. 165.—DISTRIBUTION OF SCARLET FEVER CASES AND DEATHS  
ON CAIRO CITY DISTRICTS 1949

Cairo Districts	Mid Year Population	No. of Cases	Case Rate per 1,000 of population	No. of Deaths	Death Rate per 1,000 of population	Case Mortality Rate Per cent
Kubba ... ..	89,300	—	—	—	—	—
Heliopolis ... ..	89,000	—	—	—	—	—
Zeitoun ... ..	84,700	1	.01	—	—	—
Abbassia ... ..	129,700	1	.088	—	—	—
Ezbekia ... ..	105,500	—	—	—	—	—
Rod el Farag ... ..	207,000	—	—	—	—	—
Shubra ... ..	170,000	—	—	—	—	—
Sharabia ... ..	74,100	—	—	—	—	—
Gamalia ... ..	115,400	—	—	—	—	—
Bab el Shaaria ... ..	114,200	1	.009	—	—	—
Abdine ... ..	91,200	1	.009	—	—	—
Mousky ... ..	75,500	1	.013	—	—	—
Darb el Ahmar ... ..	110,800	—	—	—	—	—
Khalifa ... ..	121,200	—	—	—	—	—
Sayeda I ... ..	105,200	—	—	—	—	—
Sayeda II ... ..	96,500	—	—	—	—	—
Bulaq I ... ..	66,600	1	.015	—	—	—
Bulaq II ... ..	73,200	—	—	—	—	—
Adawia ... ..	64,700	—	—	—	—	—
Old Cairo ... ..	106,900	—	—	—	—	—
Helwan ... ..	48,100	1	.02	—	—	—
Maadi ... ..	45,100	—	—	—	—	—
TOTAL ... ..	2,184,800	7	.003	—	—	—

## PASSENGER CONTROL

### *Passengers :*

During 1949, a total of 32,302 passengers arrived in Cairo from infected countries; as compared with 16,884 in 1948.

Of this number, 13,421 passengers arrived by air, 423 arrived by car via Ismailia, 2,723 passengers arrived by train via Kantara. Those arriving by sea were 1,398 passengers via Suez 3,504 via Alexandria and 712 via Port Said.

Moreover, 10,121 passengers arriving from the Sudan through Shellal were observed for small pox, yellow-fever and meningitis. All the passengers (except 659 or 2.04 per cent who could not be traced) were abserved for the regulation period and found in good health.

### *Pilgrims :*

The number of Egyptian pilgrims arriving from the Hedjaz in 1949 was 2,590 as compared with 4,001 in the previous year.

All the returning pilgrims were observed for the regulation period and found in good health.

### *Deaths :*

23 pilgrims died in the Hedjaz.

One died of cerebro spinal fever.

One Pilgrim fell sick with typhoid but later recovered.

188 pilgrims from other localities than Cairo were observed and found in good health.

Personnel of the medical mission numbering 75 as well as 32 employees of Bank Misr were also observed and found in good health.

### *Unhealthy, Inconvenient, and Dangerous Establishments :*

During the year, the following establishments were licensed under Law No. 13 of 28th August 1904, and Arrêté of the Ministry of Interior of 29th August of the same year.

1st Class			2nd Class			3rd Class			GRAND TOTAL
Saha	Zabt	TOTAL	Saha	Zabt	TOTAL	Saha	Zabt	TOTAL	
267	202	469	1,030	462	1,492	537	118	655	2,616

457 Public establishments were licensed under Law No. 38 of 1941.

Of a total of 22,696 unhealthy establishments inspected during 1949, 18,972 were found satisfactory and 3,724 unsatisfactory.

Of a total of 8,338 inconvenient and dangerous establishments inspected, 6789 were found satisfactory and 1549 unsatisfactory. No establishments at Rod El Farag, Mousky and Darb El Ahmer were inspected

Of 3,672 public establishments inspected, 3,000 were found satisfactory and 672 unsatisfactory.

2,733 Proces - verbeaux of contravention were drawn up against establishments exploited without licences, and 1,829 contraventions were drawn up for lacking conditions in licensed establishments making a total of 4,562 contraventions.

Under the theatre regulations, 103 theatres, cinémas and other places of entertainment were inspected during the year.



## GENERAL SANITATION

Activities of the Sanitation Section during the year 1949 may be summarised as follows :

1. Samples of water were regularly taken from the different main water supplies of the City, Helwan, Zeitoun, Heliopolis and Giza in order to ensure their purity. Samples of water were also regularly taken from different taps in the City and from swimming baths for the same purpose.
2. Quack doctors continue to be pursued and prosecuted.
3. Maintenance of the cleanliness of streets and thoroughfares .
4. Control of the dumping of sewage matter.
5. Application of law No. 151 of 1947 regarding the fencing and sanitation of waste lands.
6. 3,409 free permits were given for evacuation of private cisterns.
7. Some 7,500 complaints were received and dealt with during the year in respect of throwing dirty water in streets overflow, of private cesspits, etc.
8. Control and maintenance of 210 free water taps distributed throughout the City.
9. Control of 8 basins distributed at the entrances of the City for washing and disinfecting vegetables and fruits before admission to the City.
10. 4,000 compulsory evacuations of cesspits were carried out by this section.

## CAIRO POLICE HEALTH OFFICE

The strength of Cairo Police force during the year was estimated at 14,163 all ranks (military and civilians).

The following are details of the work carried out by this Office :

### *Medical Work :*

Policemen examined for sick leaves ... ..	21,152
Other police personnel examined for sick leaves	872
Other personnel ... ..	310
Medico legal reports ... ..	30,822
Car and Cab drivers examined for practising profession ... ..	6,466
Candidates for police posts ... ..	2,291

### *Sanitary Work :*

Number of inspections of Police units ... ..	173
Personnel vaccinated against Small Pox ... ..	1,069
„ inoculated against typhoid ... ..	8,732
Persons stung by scorpions and received first aid	1,040

The most prevalent diseases amongst police non-commissioned officers and men were bronchitis, rheumatism and wounds. Those prevalent among police officers and civilian officials were : bronchitis, rheumatism, enteritis, diarrhoea and tonsillitis.

Of 429 policemen referred to the fever hospital, 25 suffered from typhoid, 24 from pneumonia, 43 from colitis and the remainder from other diseases.

TABLE NO. 166.—PUBLIC BATH-HOUSES AND LAUNDRIES 1949

No.	Address	No. of visitors	No. of persons deloused	Quantity of Soap used K.G.
1	Sidi Abdel Gawad, Boulaq ...	39,517	73,570	5,481
2	Tal Zenhom, Sayeda ...	26,307	63,546	4,377
3	Darb el Ansia, Darb el Ahmar	28,431	48,195	3,580
4	El Otouf, Gamalia ...	29,416	46,082	3,428
5	El Bakria ...	23,415	54,028	3,690
6	Tura El Faroukia... ..	13,491	34,427	2,364.5
7	Boulaq health centre ...	15,178	51,809	3,451
8	Sharabia ...	12,916	29,086	1,956.5
9	Rod el Farag ...	2,391	84,976	0,300
10	Old Cairo ...	31,964	50,961	4,136.5
11	Sayeda Zeinab ...	24,788	47,764	3,422.5
12	Mohamady, Abbassia ...	27,099	49,181	3,401
13	Khalifa ...	32,312	47,011	3,475.5
TOTAL ...		307,225	600,636	43,063.5
				43 Tons nearly

ANTE-MATRIMONY MEDICAL EXAMINATION OFFICE, BOULAQ HEALTH CENTRE

No. of persons presented themselves for examination = 262

134 found eligible and received certificates.

43 found eligible but did not turn up for their certificates.

34 Ceased attendance before completion of examination.

51 found ineligible

LIST OF CONTRAVENTIONS DRAWN UP DURING THE YEAR 1949

Number of contraventions	Number of contraventions for food stuff adulteration	Number of contraventions under the icecream law	Number of contraventions for use of illegal colouring matter	Number of contraventions under refuse law of 1949	Number of contraventions for spilling milk	Number of contraventions for unwholesome foodstuffs	Number of contraventions for adulteration of milk	Total numbers of Proce Verbeaux
4,679	287	6	12	151	34	202	1,629	7,000

Number of milk vendors licensed ... .. 135  
 ,, ambulant vendors who were licenscd ... .. 100

NUMBER OF SAMPLES OF MILK TAKEN DURING 1949 AND RATE OF ADULTERATION

Number of Samples	Adulterated Samples						Total number of adult. samples	Number of genuine samples	Percentage of adulteration
	Skimmed Samples		Samples to which water was added		Samples skimmed and to which water was added				
6798	No. of Samples	Rate of adult.	No. of Samples	Rate of adult.	No. of Samples	Rate of adult.			
	1,027	14.9%	225	33%	207	3%	1,461	5,337	21.2%

N.B The total number of adulterate ! samples includes samples which were unfit.











## Appendix VII—International Health

### *Establishment and Functions of the Section :*

This Section was established under Ministerial Arrêté dated 18th August 1949 which was published by Departmental Order No. 166 of 1949. Allocations for its posts were provided for in the 1948/1949 and 1949/1950 Budgets.

Its functions were determined as follows :

1. All matters relating to the World Health Organization.
2. All matters relating to medical and health conferences
3. Observing the execution of International Conventions and Agreements.

The first Director of the Section Dr. M.M. Sidky assumed his duties on November 1st. 1949.

### *The World Health Organization:*

Owing to the close collaboration between the Egyptian Government and the World Health Organization, herebelow is a brief statement on the part played by the Egyptian Government towards the establishment of the Organization.

The WHO had its origin in a proposal made during the United Nations Conference held in San Francisco in 1945 for the creation of a specialised agency to deal with all matters relating to health. A Technical Preparatory Committee, composed of representatives of certain Governments including Dr. A. T. Shousha, the ex- Under Secretary of State for this Ministry as Egypt's representative, was convened by the Economic and Social Council. This committee met in Paris between March 18 and April 15, 1946 and laid down the principles of the WHO Constitution. An International Health Conference attended by representatives from 61 States was held purposely in New-York during the period between June 19 and July 22, 1946.

Egyptian Representatives were :

Dr. A. T. Shousha, ex - U.S.S., Ministry of Health.

Taha El-Sayed Nasr, ex - Adviser, Contentieux, M.P.H.

Dr. Mahmoud Soliman Abaza, ex-Director General, Social Hygiene Department, M.P.H.

The Conference Drafted and signed :

1. The WHO Constitution.
2. An Agreement for the establishment of the WHO Interim Commission, composed of representatives of some States including Egypt, to serve until the Constitution was ratified.
3. A Protocol for the dissolution of the Office International d'Hygiene Publique and the transfer of its functions to the WHO.

By laws No. 136 and 137 of 1947, the Egyptian Government ratified both the WHO Constitution and the Protocol.

The Former came into force on April 7, 1948, following its ratification by 26 Member States of the United Nations as provided in Article 80 thereof.

The latter came into force on October 20, 1947.

### *The World Health Assembly and the Executive Board :*

The Interim Commission continued to serve until the meeting of the first World Health Assembly in Geneva on June 24, 1948, following the ratification of its constitution

The First Assembly elected 18 Member States who appointed as many representatives to form the Executive Board.

Egypt was elected Member of the Board for 2 years. Dr. Shousha was elected President of the Board.

The Second World Health Assembly met in Rome on June 13, 1949 where Egypt was represented by a delegation presided over by the Minister of Public Health.

Until the end of 1949, the Board had held four sessions.

#### *Regional Committees and Offices:*

The WHO had divided the world into regional areas each consisting of a group of countries having common natural features and health problems. To each Area was set up a Regional Office to promote health standards within member countries. A Regional Office was set up for the Eastern Mediterranean Area. By decision of the Council of Ministers dated January 9, 1949, the Egyptian Government agreed to have the seat of the Office in Alexandria and to incorporate the Pan Arab Regional Office of Alexandria with the WHO.

Besides, By Law No. 66 of 1949, the Government agreed to lease to WHO the premises hitherto occupied by the Quarantine Department in Alexandria for use as the seat of the Regional Office, for 9 years at a nominal rental of 100 mms. per annum.

#### *Expert Committees.*

The WHO has established technical experts committees composed of distinguished specialists to study medical and health problems. Egypt is represented in most of these committees as follows :

Dr. A.T. Shousha,	Experts Committee on Cholera,
Dr. M. Nazif,	Experts Committee on Epidemiology and Quarantine.
Dr. M. Abdel Azim,	Experts Committee on Schistosomiasis
Prof. I. R. Fahmy,	Experts Committee on Unification of Pharmacopias.
Dr. Abdel Fattah El-Tobgy,	Experts Committee on Trachoma.
Dr. M. S. Abaza,	Experts Committee on Tuberculosis.
Dr. T. Goma,	Experts Committee on Tuberculosis.
Dr. I. H. Nagi,	Experts Committee on Venereal Diseases.
Dr. F. A. Soliman,	Corresponding Member of the Experts Committee on Venereal Diseases.
Dr. S. Madwar,	Corresponding Member of the Experts Committee on Malaria.
Dr. I. M. Shaheen,	Member of Experts Advisory Panel on Rabies

The Joint WHO/OIHP Study Group on Schistosomiasis held its first Session in Cairo between the 24th. and the 29th. October 1949. Its report was submitted to the Executive Board and the World Health Assembly.

#### *Egypt's Contribution to the WHO:*

Contributions of Member states towards the World Health Organization budgets for the financial years 1948 and 1949 were assessed according to the scale adopted by the United Nations.

Egypt's contribution on that basis amounted to \$ 36,930 for 1948 and \$ 38,242 for 1949 i. e. equivalent to 95 units. Besides, Egypt paid \$ 10924.18 as its share in the Working Capital Fund.



### *WHO Publications :*

Activities of the WHO are published in the following periodicals which are distributed to the Departments of the Ministry for perusal :

Official Records of the World Health Organization,  
Chronicle        „        „        „        „  
International Digest of Health Legislation,  
Epidemiological and Vital Statistics Reports,  
Bulletin of the World Health Organization,  
Weekly Epidemiological Record.

### *World Health Day :*

The Ministry celebrated the 22nd. July 1949 being the anniversary of the signing by 61 States of the World Health Constitution in 1946 as follows :

#### *Press :*

A Press Conference was held by the Minister of Public Health who discussed the World Health Organization and its objectives. All the Arabic and European Papers appearing on that day, published accounts of the Conference.

#### *Cinema :*

A film recording the visit to Egypt of WHO members on the occasion of the setting up of the Eastern Mediterranean Regional Office was distributed to all cinemas and shown on that day.

#### *Broadcasts from the Egyptian State Broadcasting Station:*

*Arabic Programme:*— A talk and a theatrical performance on the WHO and its aims were broadcast. Besides, a commentary on the World Health Day was broadcast with the News Bulletins.

*European Programme:*—Two talks were broadcast one in English and another in French. A commentary on the World Health Day was also broadcast with the News Bulletins.

### *Principal WHO Activities in Egypt during 1949 :*

1. The Establishment of the Regional Office for the Eastern Mediterranean Area in Alexandria on 1.7.1949.

2. Arrival in Egypt of Experts in Tuberculosis, Venereal Diseases, Maternal and Child Health and Nursing to discuss with the Ministry the control measures taken against certain diseases and to organize some public health services pertaining to the above mentioned problems.

3. On 23/4/1949, the Council of Ministers authorized the Ministry of Public Health to sign the Agreement concluded between the Egyptian Government and the United Nations International Childrens Emergency Fund and the Danish Red Cross in connection with a mass B.C.G. vaccination campaign. This Agreement was signed on 2/5/1949 and a team was sent to Egypt by these Organizations and is now collaborating with the staff of the Chest Diseases Section in this campaign.

4. The Ministry agreed in principle to the proposed agreement with the WHO for the establishment and operation of a Venereal Diseases Control Demonstration Centre.

5. The WHO adopted the 6th. Revision of the International List of Diseases and Causes of Death (WHO Regulations No. 1) This was communicated to Member States, accepted by this Ministry and came into force on the 1st. of January 1950.



6. Two officials of this Ministry were seconded to the World Health Organization, Geneva, and five others to the Regional Office for the Eastern Mediterranean Area for two years.

7. During 1949, nine officials were awarded fellowships at the expense of the WHO to study tuberculosis, venereal diseases, malaria, mental health, sanitation and social aspects of tuberculosis.

#### CONVENTIONS.

Decrees ratifying the following conventions and agreements were issued by the Egyptian Government during the year 1949.

1. Decree dated 11/7/1949 ratifying the Agreement on Privileges and Immunities of the United Nations.

2. Decree dated 21/11/1949 ratifying Convention No. 19 Providing for Equality of Treatment for national and foreign workmen as regards compensation for accident.

3. Decree dated 22/12/1949 ratifying the Protocol signed on 4/5/1949 amending the two International Conventions relative to the suppression of the white slave traffic signed in Paris on 18/5/1904 and 4/5/1910.



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*Director.*

HASSAN ALI KLEWA.



